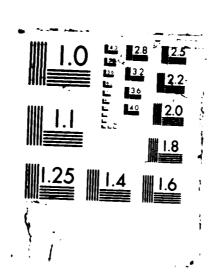
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INSTALLATION RESTORATION PROGRAM
PHASE II - CONFIRMATION/QUANTIFICATION
STAGE 1

FINAL REPORT
FOR
AIR FORCE PLANT 4
FORT WORTH, TEXAS

VOLUME 4. APPENDIX A-1 (CONTINUED)

HEADQUARTERS AERONAUTICAL SYSTEMS DIVISION FACILITIES MANAGEMENT DIVISION (ASD/PMDA) WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433-6503

AND

HEADQUARTERS, AIR FORCE SYSTEMS COMMAND COMMAND BIOENVIRONMENTAL ENGINEER (AFSC/SGPB) ANDREWS AIR FORCE BASE, DC 20334-5000

DECEMBER 1987

PREPARED BY
RADIAN CORPORATION
8501 MO-PAC BOULEVARD
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AUSTIN, TEXAS 78720-1088



USAF CONTRACT NO. F33615-83-D-4001 DELIVERY ORDER 27 RADIAN CONTRACT NO. 212-027-27

APPROVED FOR PUBLIC RELEASE DISTRIBUTION UNLIMITED

USAFOEHL TECHNICAL PROGRAM MANAGERS
MAJOR GEORGE R. NEW
CAPTAIN ARTHUR S. KAMINSKI

UNITED STATES AIR FORCE
OCCUPATIONAL & ENVIRONMENTAL !"ALTH LABORATORY (USAFOEHL)
BROOKS AIR FORCE BASE, TEXAS 78235-5501

APPENDIX A-1 (Continued)
Groundwater Analytical Data

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	DUPLICATE OF TABLE A.1-1 OF INDEX REPORTS, BY WORK ORDER NUMBER	OF ANALYTICA
Volume 2	Volume 3	Volume 4
86-01-239	86-02-067	86-02-169
86-01-240	86-02-070	86-02-176
86-01-242	86-02-075	86-02-179
86-02-001	86-02-078	86-02-197
86-02-004	86-02-079	86-02-198
86-02-015	86-02-087	86-03-002
86-02-016	86-02-091	86-03-003
86-02-019	86-02-100	86-03-004
86-02-030	86-02-109	86-03-018
86-02-031	86-02-113	86-03-021
86-02-038	86-02-120	86-04-069
86-02-041	86-02-122	86-04-070
86-02-044	86-02-123	86-04-084
86-02-047	86-02-132	86-04-085
86-02-058	86-02-138	86-04-135
86-02-060	86-02-139	86-04-164
	86-02-152	86-07-086
	86-02-159	86-07-088
		86-07-095
		86-08-034
		86-08-058
		86-08-078
		86-08-092
		86-08-093
		86-08-094
		86-08-095
		86-08-096

This report discusses analytical data Concerning environmental profestion and water quality,

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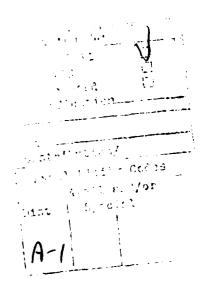
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COLORGE PROSECULA PROSECULA



GROUNDWATER AND SURFACE WATER SAMPLE LOG AND CROSS-REFERENCE TABLE TABLE A.1-6.

AND SCHOOL STREET

Well or Soil OEHL Date Boring Musber Number Sampled	OEHL Number		RAS On Analyses Performed Num	RAS Work Order Number	Date Extracted	Date Date Comments	Comments
HM-2	860184	2/20/86	Hydrogensted vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138	, , , ,	,	
			Pesticides & PCBs (608)	86-02-132	2/24/86	3/6/86	
			B/N & Acid Semi-vols. (625)	86-02-132	09/57/7	3/6/86	
	6 3 1 0 3 0	70/01/0	Metals	60-70-09			
<b>HM-</b> -5	860152	08 /7 1 /7	Aydrogenated vols. (601)	6 60 -02			
			Aromatic Vols. (602)	86-02-07	7/13/86	7/27/86	
			Edelicites a robs (000)	86-02-078	2/13/86	2/21/55	
			Morels Semi-Vois: (023)	86-02-079	36 /51 /3	20 117 17	
UM-7	640162	7/13/86	Hadrosenstad vols (601)	86-02-087			
(-17)	701000	00 /61 /7	Accepted wolf (602)	86-02-087			
			Aromatic Vols. (602)	96-02-08/	36/11/6	3/5/86	
			resticides a robs (000)	86-02-091	2/11/86	3/5/86	
			MARKET SEEL VOIE: (023)	86-02-091	3	2016	
2	171070	70/61/6		96 02 087			
0-11	101000	09/51/7	Hydrocarbon Fuels	701-00			
6-EE	907099	00//7/7	Hydrogenated Vols. (bul)	767-70-00			
			Aromatic vols. (602)	86-02-19/	,0,0,0	307 007 0	
			Pesticides & PCBs (608)	86-02-198	3/3/86	3/13/86	
			B/N & Acid Semi-vols. (625)	86-02-198	3/3/86	3/13/86	
			Metals	86-02-197			
HPH-10	860137	2/1/86	Halogenated vols. (601)	86-02-047			
			Aromatic vols. (602)	86-02-047			
			Pesticides & PCBs (608)	86-02-044	2/10/86	2/25/86	
			B/N & Acid Semi-vols. (625)	86-02-044	2/10/86	2/25/86	
			Metals .	86-02-047			
HM-11	860146	2/10/86	Hydrogenated vols. (601)	86-02-060			
			Aromatic vols. (602)	86-02-060			
			Pesticides & PCBs (608)	86-02-058	2/12/86	2/26/86	
			B/N & Acid Semi-vols. (625)	86-02-058	2/12/86	2/26/86	
			Metals	86-02-060			
HM-12	860165	2/14/86	Hydrogenated vols. (601)	86-02-100			
			Aromatic vols. (602)	86-02-100			
			Pesticides & PCBs (608)	86-02-109	2/18/86	3/5/86	
			B/N & Acid Semi-vols. (625)	86-02-109	2/18/86	3/5/86	
			Metals	86-02-100			
HPH-13	860178	2/19/86	Hydrogenated volg. (601)	86-02-120			
			Aromatic vols. (602)	86-02-120			
			Pesticides & PCBs (608)	86-02-122	2/20/86	3/5/86	
			B/N & Acid Semi-volm. (625)	86-02-122	2/20/86	3/5/86	
			Metals	86-02-120			
HM-14	860177	2/19/86	Hydrocarbon Fuels	86-02-120			
HM-15	860193	2/25/86	Hydrogenated vols. (601)	86-02-159			
			Aromatic vols. (602)	86-02-159			



TABLE A.1-6.

Comments					
Date Analyzed	2/27/86 2/27/86 2/27/86 2/27/86	2/27/86 2/27/86	2/12/86 2/12/86 2/12/86 2/25/86 2/25/86	3/6/86 2/6/86 3/6/86	3/6/86 2/27/86 2/27/86
Date Extracted	2/12/86 2/12/86 2/12/86 2/12/86 2/12/86	2/12/86 2/12/86	2/3/86 2/3/86 2/10/86 2/10/86	2/24/86 2/24/86 2/20/86	2/20/86 2/12/86 2/12/86
RAS Work Order Number	86-02-067 86-02-067 86-02-070 86-02-070 86-02-070 86-02-067 86-02-067 86-02-070 86-02-070	86-02-067 86-02-067 86-02-070 86-02-070 86-02-070 86-03-003 86-03-003	86-03-004 86-02-001 86-02-001 86-02-004 86-02-004 86-02-004 86-02-047 86-02-047 86-02-047	86-02-138 86-02-138 86-02-132 86-02-133 86-02-113 86-02-113 86-02-120 86-02-120	86-02-122 86-02-122 86-02-067 86-02-067 86-02-070 86-02-070 86-02-070
Analyses Performed	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Hydrogenated vols. (601) Pasticides & PCBs (608) B/N & Acid Semi-vols. (602) Motals	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Hydrogenated vols. (601) Aromatic vols. (602) Oil and Greese	Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608)	B/N & Acid Semi-vols. (625) Metals Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals
Date Sampled	2/11/86	2/11/86	1/31/86	2/20/86 2/18/86 2/19/86	2/11/86
OEHL Number	860147	860150	860109	860181 860174 860176	860148
Well or Soil Boring Number	HM-16 HM-17	HM-18	ня-20 ня-21	НМ-22 НМ-23 НМ-24	нм-25

TABLE A.1-6. (Continued)

Well or Sold Boring Number	OKHL Number	Date Sampled	Analyses Performed	Order Number	Date Extracted	Date Analyzed	Comments
HM-26	860112	1/31/86	Halogenated vols. (601)	86-02-001			
			Aromatic vols. (602) Pesticides & PCBs (608)	86-02-001 86-02-004	2/3/86	2/11/86	
			Pesticides & PCBs(608)	86-02-016	2/4/86	2/14/86	Duplicate analysis
				86-02-004	2/3/86	2/11/86	•
			B/N & Acid Semi-vols. (625)	86-02-016	2/4/86	2/14/86	Duplicate analysis
		, , , , , ,	Metals	86-02-001			
HM-27	860113	1/31/86	Halogenated vols. (601)	86-02-001			
			Aromatic vols. (602)	86-02-001	201716	70////	
			Pesticides & PCBs (608)	86-02-016	08/4/7	2/14/86	
			D/N & ACLU SERI-VOIS: (025)	86-02-010	08 /* /3	20/11/2	
HM-28	860132	2/6/86	Halogenated vols. (601)	86-02-041			
		; ;	Aromatic vols. (602)	86-02-041			
			Pesticides & PCBs (608)	86-02-038	2/10/86	2/24/86	,
			B/N & Acid Semi-vols. (625)	86-02-038	2/10/86	2/24/86	
			Metals	86-02-041	,		
HM-28	860133	2/6/86	Pesticides and PCBs (608)	86-02-038	2/10/86	2/25/86	Duplicate of 860132
;	•	, , , , , , ,	B/N & Acid Semi-vol. (625)	86-02-038			
KM-29	860189	2/21/86	Hydrogenated vols. (601)	86-02-138			
			Aromatic Vols. (602)	86-02-158	7175/86	3/11/8	
			Feet Icloses a rubs (000) B/M L Acid Comittols (625)	86-02-152	2/25/86	3/11/86	
			Metals	86-02-139			
			Oil and Grease	86-02-139			
			Hydrocarbon Fuels	86-02-139			
HM-30	860163	2/13/86	Hydrogenated vols. (601)	86-02-087			
			Aromatic vols. (602)	86-02-087			
			Pesticides & PCBs (608)	86-02-091	2/17/86	3/5/86	
			B/N & Acid Semi-vols. (625)	86-02-091	2/11/86	3/5/86	
		,	Metals	86-02-087			
HM-31	860166	2/14/86	Hydrogenated vols. (601)	86-02-100			
			Aromatic vols. (602)	80-02-100	2/10/06	3/5/86	
			PARTICIONES OF COS (000)	86-02-109	2/10/00	3/5/86	
			Metals	86-02-100			
			Oil and Grease	86-02-100			
			Hydrocarbon Fuels	86-02-100			
HM-32	860164	2/14/86	Hydrogenated vols. (601)	86-02-100			
			Aromatic vols. (602)	86-02-100			
			Pesticides & PCBs (608)	86-02-109	2/18/86	3/5/86	
			B/N & Acid Semi-vols. (625)	86-02-109	2/18/86	3/2/80	
		3070070	Metals	86-02-100			
HM-33	86020	2/ 28/ 86	Hydrogenated vols. (601)	86-03-002			
			Aromatic Vols. (002)	86-03-002			
			Hardronarhon Finals	86-03-004			

(Continued)
TABLE A. 1-6.

National Comments   National Comments	R	AD!	AN									
RAS Work  Order  Number  B6-03-002  B6-03-004  B6-03-004  B6-02-197  B6-02-198  B6-02-197  B6-02-197  B6-02-198  B6-02-197  B6-02-197  B6-02-197  B6-02-198  B6-02-197  B6-02-159  B6-02-159					Duplicate of 860204							
RAS Work Order Number  86-03-002 86-03-004 86-02-197 86-02-159		Date Analyzed		3/13/86 3/13/86	3/13/86 3/13/86	3/13/86 3/13/86	3/13/86 3/13/86	2/12/86 2/12/86	3/10/86 3/10/86	3/13/86 3/13/86	3/12/86 3/11/86	
<u> </u>		Date Extracted		3/3/86 3/3/86	3/3/86 3/3/86	3/3/86 3/3/86	3/3/86 3/3/86	2/3/86 2/3/86	2/25/86 2/25/86	3/3/86 3/3/86	2/27/86 2/27/86	
<u> </u>	(Continued)	RAS Work Order Number	86-03-002 86-03-002	86-03-004 86-03-004 86-02-197 86-02-198 86-02-198	86-02-197 86-02-197 86-02-197 86-02-198 86-02-198	86-02-197 86-02-197 86-02-197 86-02-198 86-02-198	86-02-197 86-02-197 86-02-198 86-02-198	86-02-19/ 86-02-001 86-02-001 86-02-004	86-02-001 86-02-138 86-02-138 86-02-152 86-02-152	86-02-197 86-02-197 86-02-198 86-02-198 86-02-198	86-02-159 86-02-159 86-02-169 86-02-169	86-02-159
	TABLE A. 1-0.	Analyses Performed	)18. (602	als 51s. (60 (602) 3Bs (608 i-vols.	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Merals Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) N & Acid Semi-vols. (625)	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Metals Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Metals Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Metals Hydrogenated vols. (601)
		OEHL Number	860208	860204	860205	860203	860202	860114	860188	860201	860194	860192
0EHL. Number 860208 860204 860205 860202 860203 860114 860118		Well or Soil Boring Number	нм-33	HM-34	нм-34	Нм−35	нм−36	HM-37	HM-38	HM-39	0 <b>≻−4</b> H	17-MH

TABLE 4.1-6.

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
HM-42	860183	2/20/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) BN & Acid Semi-vols. (625)	86-02-138 86-02-138 86-02-132 86-02-132	2/24/86 2/24/86	3/6/86 3/6/86	
HM-43	860182	2/20/86	Hereis Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	86-02-138 86-02-138 86-02-138 86-02-132 86-02-132	2/24/86 2/24/86	3/6/86 3/6/86	
HM-44	860190	2/25/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	86-02-159 86-02-159 86-02-169 86-02-169 86-02-169	2/27/86 2/20/86	3/12/86 3/12/86	
HM-45	860191	2/25/86	Hereas Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	86-02-159 86-02-159 86-02-159 86-02-169 86-02-169	2/27/86 2/27/86	3/12/86 3/12/86	
<b>1M−46</b>	860185	2/20/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-138 86-02-138 86-02-132 86-02-132 86-02-139	2/24/86 2/24/86	3/6/86 3/6/68	
17-MH	860130	2/6/86	Halogenated vols. (601) Aromatic vols. (602) Metals Oil and Grease Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Metals Oil and Grease	86-02-041 86-02-041 86-02-041 86-02-041 86-02-041 86-02-041 86-02-041			Duplicate of 860130
HM-49	860167	2/14/86 2/12/86 2/12/86	Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Chromium Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease Hydrocarbon Fuels Hdyrogenated vols. (601)	86-02-100 86-02-100 86-02-100 86-02-100 86-02-075 86-02-079 86-02-079			
			Aromatic vols. (602) Oil and Grease Hydrocarbon Fuels	86-02-075 86-02-079 86-02-079			(continued)

				KAN WOLK			
Well or Soil	OEPL	Date		Order	Date	Date	,
Boring Number	Number	Sampled	Analyses Performed	Number	Extracted	Analyzed	Comment s
3	131070	7011110	(103) -[	170 00 30			
10-11	101009	09/11/7	Hydrogenated Vols. (601)	790-70-99			
			Alomatic Vols: (002)	790-70-98			
			Hydrocarbon Fuels	86-02-067			
HM-52	860141	2/10/86	Halogenated vols. (601)	86-02-060			
			Aromatic vols. (602)	86-02-060			
			Pesticides & PCBs (608)	86-02-058	2/12/86	2/26/86	
			B/N & Acid Semi-vols. (625)	86-02-058	2/12/86	2/26/86	
			Metals	86-02-060			
			Oil and Grease	86-02-060			
	0	70,000	Hydrocarbon Fuels	86-02-060			
HM-52	860142	2/10/86	Halogenated vols. (501)	86-02-060			Duplicate of 860141
			Arometic vols. (602)	86-02-060			
			Metals	86-02-060			
			Ull and Grease	0,00-70-080			
		20,00,0	Hydrocarbon Fuels	86-02-060			
HM-53	860145	2/10/86	Hydrocarbon Fuels	80-02-090			
+C-L11	C+1000	7/ 10/ 90	Arometic nole (601)	090-70-98			
			Aromatic Vols. (602)	090-70-09	70/11/6	20/36/06	
			Perticides & robs (600)	86-02-038	78/71/7	2/26/86	
			Morels	86-02-038	00 /71 /7	00 /07 /7	
				86-02-060			
			Ull and Grease Hydrocerbon Fiels	86-02-060			
75-MH	860144	2/10/86	Pesticides and PCRs (608)	86-02-058	2/12/86	2/26/86	Duplicate of 860143
		20 /21 /2	B/N & Acid Semi-vols. (625)	86-02-058	2/12/86	2/26/86	
HM-55	860119	2/4/86	Hydrocarbon Fuels	86-02-123			
	i i i	:	Oil and Grease	86-02-019			
HM-56	860186	2/21/86	Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
			Pesticides & PCBs (608)	86-02-152	2/25/86	3/10/86	
			B/N & Acid Semi-vols. (625)	96-02-152	2/25/86	3/10/86	
			Metals	86-02-139			
			Hydrocarbon Fuels	86-02-139			
	4		Purgeables (624)	86-02-152			
HM-57	860200	2/26/86	Hydrogenated vols. (601)	86-02-1/6			
			Aromatic vols. (602)	0/1-70-08	70/00/0	20/01/0	
			Pesticides & PCBs (508)	80-02-1/9	98/87/7	3/12/86	
			B/N & Acid Semi-Vols. (623)	6/1-70-09	00/07/7	27 147 00	
			Metals	86-02-176			
			Understand Greater	96-02-176			
	860195	2/26/86	Hydrospated vols (601)	86-02-176			
	6000	20 /07 /7	Aromatic vols. (602)	86-02-176			
			Destinides & DCRs (ADR)	86-02-179	2/28/86	3/12/86	
			R/N & Acid Semi-vole (625)	86-02-179	2/28/86	3/12/86	
			Mirels	86-02-176	00/07/7	27 121 15	
			netals	86-07-176			
			Oll and Grease	96-03-176			
			nydrocarbon rueis	277 70 00			

TABLE 4.1-6.

RAMAN DIGITION SOSSION DIGITION DIGITION NOT SOSSION DIGITION DE CONTRACTOR DESCRICA DESCRICA DIGITION DE CONTRACTOR DE CONTRACT

				RAS Work			
Well or Soil	OEHL	Date		Order	Date	Date	
Boring Number	Number	Sampled	Analyses Performed	Number	Extracted	Analyzed	Connents
HM-58	860196	2/26/86	Hydrogenated vols. (601)	86-02-176			Duplicate of 860195
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-179			
			B/N & Acid Semi-vols. (625)	86-02-179			
			Metals	86-02-176			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
HM-59	860113	2/3/86	Halogenated vols. (601)	86-02-015			
			Aromatic vols. (602)	86-02-015			
			Pesticides & PCBs (608)	86-02-016	2/4/86	2/14/86	
			B/N & Acid Semi-vols. (625)	86-02-016	2/4/86	2/14/86	
			Metals	86-02-015			
			Oil and Grease	86-02-015			
			Hydrocarbon Fuels	86-02-015			
	860134	2/6/86	Hotocontod wole (601)	86-02-041			
00-15	1000	00 /0 /7	Maiogenated Vois: (COI)	96-02-041			
			MICHAELIC VOIS: (602)	140-70-00	30/01/0	70/30/0	
			Pesticides & PCBs (608)	860-020-08	2/10/86	98/57/7	
			B/N & ACIG Sept-Vols. (023)	950-77-09	7/ 10/ 90	00 / (7 / 7	
,		,	Metals	80-02-041			
HM-61	860198	2/26/86	Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Metals	86-02-176			
,			Oil and Grease	86-02-176			
•			Hydrocarbon Fuels	86-02-176			
HM-62	860216	3/1/86	Hydrogenated vols. (601)	86-03-003			
			Aromatic vols. (602)	86-03-003			
			Pesticides & PCBs (608)	86-03-021	3/5/86	3/24/86	
			B/N & Acid Semi-vols. (625)	86-03-021	3/5/86	3/24/86	
			Metals	86-03-004			
HM-63	860138	2/1/86	Halogenated vols. (601)	86-02-047			
			Aromatic vols. (602)	86-02-047			
			Pesticides & PCBs (608)	86-02-044	2/10/86	2/25/86	
			B/N & Acid Semi-vols. (625)	86-02-044	2/10/86	2/25/86	
			Metals	86-02-047			
HM-64	860197	2/26/86	Hydrogenated vols. (601)	86-02-176			
			Aromatic vols. (602)	86-02-176			
			Pesticides & PCBs (608)	86-02-179	2/28/86	3/12/86	
			B/N & Acid Semi-vols. (625)	86-02-179	2/28/86	3/12/86	
			Metals	86-02-176			
			Oil and Grease	86-02-176			
			Hydrocarbon Fuels	86-02-176			
HM-65	860158	2/12/86	Hydrogenated vols. (601)	86-02-075			
			Aromatic vols. (602)	86-02-075			
			Oil and Grease	86-02-079			
			Hydrocarbon Fuels	86-02-079			

TABLE A.1-6.

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Hell or Soil	OEHL	Date		RAS Work Order	Date	Date	
Boring Number	Number	Sampled	Analyses Performed	Number	Extracted	Analyzed	Comments
HM-66	860159	2/13/86	Hydrogenated vols. (601)	86-02-087			
			Aromatic vols. (602)	86-02-087			
			Oil and Grease	86-02-087			
			Hydrocarbon Fuels	86-02-087			
HM-68	860209	2/28/86	Hydrogenated vols. (601)	86-03-002			
			Aromatic vols. (602)	86-03-002			
			Pesticides & PCBs (608)	86-03-018	3/6/86	3/24/86	
			B/N & Acid Semi-vols. (625)	86-03-018	3/6/86	3/24/86	
			Metals	86-03-004			
			Oil and Grease	86-03-004			
			Hydrocarbon Fuels	86-03-004			
69-MH	860187	2/21/86	Hydrogenated vols. (601)	86-02-138			
			Aromatic vols. (602)	86-02-138			
			Metals	86-02-139			
			Oil and Grease	86-02-139			
			Hydrocarbon Fuels	86-02-139			
HM-70	860179	2/19/86	Hydrogenated vols. (601)	86-02-120			
•			Aromatic vols. (602)	86-02-120			
			Metals	86-02-120			
			Oil and Grease	86-02-120			
			Hydrocarbon Fuels	86-02-120			
			Purceables (624)	86-02-152			
02-MR	860180	2/19/86	Hydrosenered vole: (601)	86-02-120			Duplicate of 860179
2			Arometic vols (602)	86-02-120			•
			Metals	86-02-120			
			Oil and Grease	86-02-120			
			Hadrocarbon Winste	86-02-120			
23.	411048	2/3/86	Mylocapated volum (601)	86-02-015			
1 / - 170		20 17 17	Archeric vole: (602)	86-02-015			
			Pearicides & PCBs (608)	86-02-016	2/4/86	2/14/86	
			B/N & Acid Semi-vols. (625)	86-02-016	2/4/86	2/14/86	
			Metals	86-02-015			
			Oil and Grease	86-02-015			
			Hydrocarbon Fuels	86-02-015			
HM-72	860168	2/14/86	Oil and Grease	86-02-100			
			Xylene	86-02-100			
			Methyl ethyl ketone	9/8/86 memo			
H2M-73	860199	2/26/86	Oil and Grease	86-02-176			
			Xylene	86-02-176			
			Methyl ethyl ketone	9/8/86 memo			
HM-74	860129	2/5/86	Oil and Grease	86-02-031			
			Xylene	86-02-031			
			Methyl ethyl ketone	9/8/86 memo			
HM-75	860173	2/18/86	Oil and Grease	86-02-113			
			Xylene	86-02-113			
			Methyl ethyl ketone	9/8/86 memo			
,							

			TABLE A.1-6. ((	(Continued) RAS Work				
0 3	BHL Bber	Date Sampled	Analyses Performed	Order	Date Extracted	Date Analyzed	Comments	
98	0160	2/13/86	Hydrogenated vols. (601) Aromatic vols. (602)	86-02-087				ĄŅ
9	136	316/96	Oil and Grease Hydrocarbon Fuels	86-02-087 86-02-087 86-02-043				
ð	C	00 /0 /7	nalogemated Vols. (501) Aromatic vols. (602) Pasticidas & PCRs (608)	86-02-041 86-02-041	2/10/86	2/25/86		
			B/N & Acid Semi-vols. (625)	86-02-038	2/10/86	2/25/86		
			Metals Oil and Grease	86-02-041				
98	0127	2/5/86	Hydrocarbon Fuels Halogenated vols. (601)	86-02-100 86-02-031				
			Aromatic vols. (602)	86-02-031				
86	7110	2/3/86	nydrocarbon ruels Halogenated vols. (601)	86-02-031				
			Aromatic vols. (602) Pesticides & PCBs (608)	86-02-015 86-02-016				
			B/N & Acid Semi-vols. (625)	86-02-016	2/4/86	2/14/86		
			Metals Oil and Grease	86-02-015	00 /* /7	09 / 1 / 7		
860	128	2/5/86	Hydrocarbon Fuels	86-02-015 86-02-031				
8	3		Aromatic vols. (602)	86-02-031				
8601	041	2/1/86	Hydrocarbon Fuels Halogenated vols. (601)	86-02-031 86-02-047				
	<u>:</u>		Aromatic vols. (602)	86-02-047				
			Pesticides & PCBs (608)	86-02-044 86-02-044	2/10/86 2/10/86	2/25/86 2/25/86		
				86-02-047	i			
			Oil and Grease	86-02-047				
960	121	2/4/86	Hydrocarbon Kuels Halosenared vols. (601)	86-02-04/				
}	:	} :	Aromatic vols. (602)	86-02-019				
			_	86-02-030	2/6/86	2/16/86		
			B/N & Acid Semi-vols, (625)	86-02-030	09 /0 /7	00 /01 /7		
			netals Oil and Grease	86-02-019				
ì		, ,	Hydrocarbon Fuels	86-02-019				
8	0258	8/21/86	Hydrogenated vols. (601) Aromatic vols. (602)	86-08-093				
			Pesticides & PCBs (608)	86-08-034				
			B/N & Acid Semi-vols. (625)	86-08-034				
			netals Oil and Grease	86-08-095				
			Hydrocarbon Fuels	86-08-095				
			Alpha	86-08-096				
				700 00 70				

TABLE A.1-6.

1,00	inac	4		RAS Work		4	
Boring Number	Number	Sampled	Analyses Performed	Number	Extracted	Analyzed	Comments
HM-84	860261	8/21/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels Alpha Beta	86-08-093 86-08-093 86-08-034 86-08-034 86-08-095 86-08-095 86-08-095			
HM-85	860259	8/21/86	Genma Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels Alpha Beta	86-08-093 86-08-093 86-08-034 86-08-093 86-08-095 86-08-095 86-08-096			
н-85	860260	8/21/86	Camma Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Alpha Beta	86-08-034 86-08-034 86-08-034 86-08-095 86-08-096			Duplicate of 860259
HM-100 HM-101	860226 860228	4/11/86	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Materia	86-04-084 86-04-164 86-04-164 86-04-154 86-04-135 86-04-135	4/23/86 4/23/86	4/28/86 4/28/86	
HM-102	860220	98/6/4	Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease Hydrocarbon Fuels	86-04-069 86-04-069 86-04-069 86-04-069			
<b>HM−1</b> 03	860224	4/10/86	Hydrogenated vols. (601) Aromatic vols. (602) Chromium	86-04-084 86-04-084 86-04-084			

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TABLE A.1-6.

				RAS Work			
Well or Soil	OEHL	Date		Order	Date	Date	
Boring Number	Number	Sampled	Analyses Performed	Number	Extracted	Analyzed	Comment s
HM-104	860222	4/10/86	Hydrogenated vols. (601)	86-04-084			
			Aromatic vols. (602)	86-04-084			
			Metals	86-04-084			
			Unit and Grease	80-04-084			
30	00000	70/01/0	Hydrocarbon ruels	96-04-094			
COT-WH	800230	09 / 61 / 9	Ull and Grease	970-09-09			
101-Mil	00000	70/01/7	hydrocarbon ruels	0.00-00			
	677000	20 /61 /4	Vit end Oresses Wydrocerbon Finels	86-08-078 R6-08-078			
HM-108	860256	8/20/86	Oil and Grease	86-08-094			
	2000	22 (27 (2	Hydrocarbon Fuels	86-08-094			
P-1	860126	2/6/86	Halogenated vols. (601)	86-02-041			
			Aromatic vols. (602)	86-02-041			
			Pesticides & PCBs (608)	86-02-038	2/10/86	2/24/86	
			B/N & Acid Semi-vols. (625)	86-02-038	2/10/86	2/24/86	
			Metals	86-02-041			
P-2	860175	2/19/86	Hydrogenated vols. (601)	86-02-120			
			Aromatic vols. (602)	86-02-120			
			Pesticides & PCBs (608)	86-02-122	2/20/86	3/6/86	
			B/N & Acid Semi-vols. (625)	86-02-122	2/20/86	3/6/86	
			Metals	86-02-120			
P-3	860123	2/4/86	Halogenated vols. (601)	86-02-019			
			Aromatic vols. (602)	86-02-019			
			Pesticides & PCBs (608)	86-02-030	2/6/86	2/16/86	
			B/N & Acid Semi-vols. (625)	86-02-030	2/6/86	2/16/86	
			Oil and Grease	86-02-019			
			Hydrocarbon Fuels	86-02-019			
P-4	860108	1/30/86	Halogenated vols. (601)	86-01-239			
			Aromatic vols. (602)	86-01-239			
			Pesticides & PCBs (608)	86-01-242	1/31/86	2/11/86	
			B/N & Acid Semi-vols. (625)	86-01-242	1/31/86	2/11/86	
P-5u	860111	1/31/86	Halogenated vols. (601)	86-02-001			
			Aromatic vols. (602)	86-02-001	,		
			Pesticides & PCBs (608)	86-02-004	2/3/86	2/11/86	
			B/N & Acid Semi-vols. (625)	86-02-004	2/3/86	2/11/86	
			Metals	86-02-001			
			Oil and Grase	86-02-001			
			Hydrocarbon Fuels	86-02-001			
P-5m	860110	1/31/86	Halogenated vols. (601)	86-02-001			
			Aromatic vols. (602)	86-02-001		•	
			Pesticides & PCBs (608)	86-02-004	2/3/86	2/11/86	
			B/N & Acid Semi-vols. (625)	86-02-004	2/3/86	2/11/86	
			Metals	86-02-001			
			Oil and Grease	86-02-001			
			Hydrocarbon Fuels	86-02-001			
P6u	860122	2/5/86	Hydrocarbon Fuels	86-02-123			
			Oil and Grease	86-02-031			
							(Ponting)

Well or Soil Boring Number	OEHL Musber	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
P-6m	860118	2/4/86	Hydrocarbon Fuels	86-02-123			
P-7u	860104	1/30/86	Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608)	86-01-239 86-01-239 86-01-242	1/31/86	2/11/86	
P-7■	860103	1/30/86	Metals Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608)	86-01-242 86-01-240 86-01-239 86-01-242	1/31/86	2/11/80	
P-8u	860136	2/1/86	Motals Model Semi-vols. (023) Metals Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	86-01-240 86-01-240 86-02-047 86-02-047 86-02-044	1/31/80 2/10/86 2/10/86	2/1/80 2/25/86 2/24/86	
P-8	860120	2/4/86	Metals  Oil and Gresse Hydrocarbon Fuels Halogenated vols. (601)  Aromatic vols. (602)  Pesticides & PCBs (608)  B/N & Acid Semi-vols. (625)	86-02-047 86-02-047 86-02-047 86-02-019 86-02-019 86-02-030	2/6/86	2/16/86 2/16/86	
P-9u	860125	2/5/86	Metals Oil and Grease Hydrocarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	86-02-019 86-02-019 86-02-019 86-02-031 86-02-030 86-02-030	2/6/86	2/16/86 2/16/86	
P-9	860124	2/5/86	Metals Oil and Gresse Hydroarbon Fuels Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals	86-02-031 86-02-031 86-02-031 86-02-031 86-02-031 86-02-030 86-02-030	2/6/86 2/6/86	2/16/86 2/21/86	
P-10u	860169	2/14/86	Oil and Grease Hydrocarbon Fuels Metals Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease	86-02-031 86-02-031 86-02-031 86-02-113 86-02-116 86-02-116 86-02-116	2/24/86 2/24/86	3/6/86	



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Comments	Duplicate of 860169	Duplicate of 860170		Duplicate of 860212	
Date Analyzed	3/7/86	3/4/86 3/6/86 3/6/86 3/6/86	3/24/86	3/24/86 3/24/86 3/24/86 3/24/86	3/24/86
Date Extracted	2/20/86	2/24/86 2/24/86 2/24/86 2/24/86	3/6/86	3/6/86 3/6/86 3/6/86	3/5/86 3/5/86
RAS Work Order Number	86-02-113 86-02-116 86-02-116 86-02-116 86-02-113 86-02-113	86-02-113 86-02-116 86-02-113 86-02-113 86-02-113 86-02-113 86-02-113 86-02-116 86-02-116	86-02-113 86-02-113 86-03-002 86-03-018 86-03-018 86-03-004 86-03-004 86-03-004	86-03-018 86-03-018 86-03-004 86-03-004 86-03-002 86-03-002 86-03-018 86-03-018	86-03-004 86-03-003 86-03-021 86-03-021 86-03-004 86-03-004
Anelyses Performed	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels Hydrogenated vols. (601)	Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Maralla	Oil and Grease Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Puels Hydrogenated vols. (601) Aromatic vols. (602)	Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Oil and Grease	Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Metals Ulder Grasse
Date Sampled	2/18/86	2/18/86	2/28/86	2/28/86	3/1/86
OEHL Number	860172	860171	860210	860211	860213
Well or Soil Boring Number	P-10u	P-10 <b>m</b>	P-11u	P-11 <b>■</b>	P-12u

TABLE A.1-6.

SSONT DOSCOUNT NOODEN TANDON DOSCOUNT DOSCOUNT DOSCOUNT DESCRIBATION DOSCOUNT DESCRIBATION DESCRIBATION DESCRIBATION

tion and then	IRAO	e i e d		RAS Work Order	Date	Dete	
Boring Number	Number	Sampled	Analyses Performed	Numbe r	Extracted	Analyzed	Consents
				;			
P-12m	860214	3/1/86	Hydrogenated vols. (601)	86-03-003			
			Aromatic vols. (602)	200-50-00 00-00-00 00-00-00	2 / 5 / 0 5	30/10/6	
			Pesticides & PCBs (608)	170-60-02	3/3/60	36/46/6	
			B/N & Acid Semi-vole. (623)	96-03-061	8 / 5 / 5	20 / 17 / 6	
				400-CO-08			
			Wednesdarbon Fuels	86-03-004			
P-13-	860215	3/1/86	Hydrogenated vols. (601)	86-03-003			Duplicate of 860214
•7×-1	)	1	Aromatic vols. (602)	86-03-003			
			Pesticides & PCBs (608)	86-03-021	3/5/86	3/24/86	
			B/N & Acid Semi-vols. (625)	86-03-021	3/5/86	3/24/86	
			Hetals	86-03-004			
			Oil and Grease	86-03-004			
			116	86-03-004			
P-20m	860218	98/6/4	Hydrogenated vols. (601)	86-04-069			
!			Aromatic vols. (602)	690-40-98			
			Pesticides & PCBs (608)	86-04-070	4/10/86	4/23/86	
			B/N & Acid Semi-volm. (625)	86-04-070	4/10/86	4/23/86	
			Metals	86-04-069			
P-20m	860219	98/6/4	Hydrogenated vols. (601)	86-04-069			Duplicate of 860218
			Aromatic vols. (602)	86-04-069	,		
			Pesticides & PCBs (608)	86-04-070	4/10/86	4/23/86	
			B/N & Acid Semi-vole. (625)	86-04-070	4/10/86	4/23/86	
			Metals	86-04-069			
P-21u	860221	4/10/86	Hydrogenated vols. (601)	86-04-084			
			Aromatic vols. (602)	86-04-084		, , , ,	
			Pesticides & PCBs (608)	86-04-085	4/14/86	4/24/86	
			B/N & Acid Semi-vols. (625)	86-04-085	4/14/86	4/24/86	
			Metals	86-04-084			
P-22u	860223	4/10/86	hydrogenated vols. (601)	86-04-084			
			Aromatic vols. (602)	86-04-084			
			Pesticides & PCBs (608)	86-04-085	4/14/86	4/22/86	
			B/N & Acid Semi-vols. (625)	86-04-085	4/14/86	98/77/4	
!		,0,0,	Metals	80-04-094			
P-23u	800223	4/8/80	Aggrogensted Vols. (601)	86-04-164			
			Desticides L PCBs (608)	86-04-135	4/23/86	4/28/86	
			B/N & Acid Semi-volm. (625)	86-04-135	4/23/86	4/28/86	
			Metals	86-04-164			
P-23u	860257	8/21/86	Hydrogenated vols. (601)	86-08-093			
3			Aromatic vols. (602)	86-08-093			
			Pesticides & PCBs (608)	86-08-034			
			B/N & Acid Semi-vols. (625)	86-08-034			
			Metals	86-08-095			
C-1	860100	1/29/86	Halogenated vols. (601)	86-01-239			
			Arcestic vols. (602)	86-01-239	30/ 10/ 1	70/1/6	
			Pesticides & PCBs (608)	86-01-242	1/31/86	98///7	
			B/N & Acid Semi-volm. (625)	86-01-242	1/31/86	7///80	
			Metala	86-01-240			
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	Comments									(1030)	(1130)
	Date Analyzed	2/7/86 2/7/86	2/11/86 2/11/86		2/7/86 2/7/86	2/7/86 2/7/86	2/27/86 2/27/86	2/28/86 2/28/86	2/28/86 2/28/86		
	Date Extracted	1/31/86 1/31/86	1/31/86 1/31/86	1/31/86 1/31/86	1/31/86	1/31/86 1/31/86	2/13/86 2/13/86	2/13/86 2/13/86	2/13/86 2/13/86		
(Continued)	RAS Work Order Number	86-01-239 86-01-239 86-01-242 86-01-242 86-01-242	86-01-239 86-01-239 86-01-242 86-01-242	86-01-240 86-01-239 86-01-239 86-01-242	86-01-240 86-01-239 86-01-239 86-01-242 86-01-242	86-01-240 86-01-239 86-01-239 86-01-242 86-01-242	86-01-240 86-02-075 86-02-075 86-02-078 86-02-078	86-02-079 86-02-075 86-02-075 86-02-078 86-02-078	86-02-078 86-02-085 86-02-078 86-02-078	86-08-092 86-08-092 86-08-092	86-08-094 86-08-094 86-08-092 86-08-094 86-08-094
TABLE A.1-6.	Analyses Performed	Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625) Matala	Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Merals Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Metals Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Metals Halogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Metals Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Metals Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Hydrogenated vols. (601) Aromatic vols. (602) Pesticides & PCBs (608) B/N & Acid Semi-vols. (625)	Herais Hydrogenated vols. (601) Arometic vols. (602)	Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease
	Date Sampled	1/29/86	1/30/86	1/30/86	1/29/86	1/30/86	2/12/86	2/12/86	2/12/86	8/20/86	8/20/86
	ORHL Number	860102	860105	860107	860101	860106	860153	860154	860155	860246	860247
	Well or Soil Boring Number	C-2	C-3	<b>4</b> -0	C-5	Creek Seep	Drain Pipe	French Drain 1	French Drain 2	Outfall #1	Outfall #1

Well or Soil Boring Number	OEHL Number	Date Sampled	Analyses Performed	RAS Work Order Number	Date Extracted	Date Analyzed	Comments
Outfall #1	860248	8/20/86	Hydrogenated vols. (601) Aromatic vols. (602)	86-08-092			(1230)
Outfell #1	860249	8/20/86	Oil and Grease Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease Hydrocarbon Fuels	86-08-094 86-08-094 86-08-092 86-08-092 86-08-094	or eff		(1330)
Outfell #1	860250	8/20/86	Oil and Grease Hydrocarbon Fuels Oil and Grease	86-08-094 86-08-094 86-08-094			
Outfall #1	860251	8/20/86	Hydrogensted vols. (601) Arometic vols. (602)	82-08-094 86-08-092 86-08-092			(1530)
Outfell #1	860252	8/20/86	Ull and Grease Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease	86-08-094 86-08-094 86-08-092 86-08-092			(1630)
Outfall #1	860253	8/20/86	Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease	86-08-094 86-08-092 86-08-092 86-08-094			(1730)
Outfall #1	860254	8/20/86	Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease	86-08-094 86-08-092 86-08-092 86-08-094			Composite (1030-1730)
Outfall #1	860255	8/20/86	Hydrocarbon Fuels Hydrogenated vols. (601) Aromatic vols. (602) Oil and Grease	86-08-094 86-08-092 86-08-092 86-08-094			(1730) Duplicate of 860254
Outfall #5	860237	8/20/86	Nydrocarbon Fuels Oil and Grease Hydrocarbon Fuels Oil and Grease	86-08-094 86-08-094 86-08-094			(0930) (Composite 0930-0530)
Outfall #5	860239	8/20/86	Hydrocarbon Fuels Oil and Grease Hydrocarbon Fuels	960-80-98 460-80-98 96-08-09-			(1130)
Outfall #5 Outfall #5	860240	8/20/86	nytrocarbon rocars Oil and Grease Hydrocarbon Fuels Oil and Grease	86-08-094 86-08-094 86-08-094			(1230)
Outfall #5	860242	8/20/86	Hydrocarbon Fuels Oil and Grease Hydrocarbon Fuels	86-08-094 86-08-094 86-08-094			(1430)
Outfall #5 Outfall #5	860243	8/20/86	Oil and Grease Hydrocarbon Fuels Oil and Grease	86-08-094 86-08-094 86-08-094			(1530) (1630)
3 1 1 1 1 1 1 1 1	476040	4/10/86	Hydrocarbon Fuels	86-08-094			(1730)

REPORT

LAB # 86-02-169

6838

Analytical Serv 03/20/86 16:06:40

Radian Corporation Larry French Austin, Texas

REPORT TO

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PAGE

PREPARED Radian Analytical BY 8501 MoPac Blvd (512) 454-479, ATTEN SAMPLES

Services

CONTACT FRENCH

than 5 times the detection limit. Indicates a value less otential error for such o and 100%.

Footnotes and Comments

<u>212-027-27-40</u> under separate cover

Plant 4 2/25/86 Fed Ex 764773273

MORK ID TAKEN TRAKS TYPE P. O. #

General Dunamics DEHL Plant 4, Bl Austin, Texas

CLIENT COMPANY FACILITY

ATTEN

Analytical Serv TEST CODES and NAMES used on this report - 625 BN/A Compounds /Neutrals Bs bu GC/MS

SAMPLE IDENTIFICATION
860190 H20
860191 H20
860192 H20
860194 H20
Reagent Blank 625 

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LAB # 86-02-169

Analytical Serv REPORT RESULTS BY TEST

Sample 05 entered units 02/27/86 Sample 04 centered units 02/27/86 Sample 03 02/27/86 Sample 02 entered units 02/27/86 Sample 01 entered units 02/27/86 EX 625 date complete default units TEST CODE

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REPORT Results by Sample Analytical Serv

LAB # 86-02-169

SAMPLE 1D 860190 H20

FRACTION OIA TEST CODE M625 A Date & Time Collected 02/25/86

NAME Method 625 Acid Compounds Category

2, 4-dinitrophenol 2-methyl-4,6-dinitrophenol 4-nitrophenol COMPOUND 5100 HH **60A** EPA **58A 39A** NPDES SCAN 4 ₽ T DATE EXTRACTED 03/12/86 DATE INJECTED 02/20/86 2 Q 2 RESULT 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2-chlorophenol COMPOUND CONC. FACTOR SCU02169CO1 EPA 21A 22A 24A NPDES SCAN 11A 8 14

ANALYST INSTRUMENT

LAK VERIFIED BY COMPOUNDS DETECTED 2

RESULT

Š

S Q

pentachlorophenol

Sphenol

377

10A

2 뮏

2, 4-dichlorophenol 2,4-dimethylphenol

31A 344 57A

24 40 S

2-nitrophenol

RESULT

SURROGATE RECOVERIES

2, 4, 6-tribromophenol d5-phenol 2-fluorophenol d3-phenol COMPOUND **AS2** ASB AS4 SCAN CODE AS1 376 272 970 003

ANO DEFINITIONS FOR THIS REPORT. SCAN = scan number or retention time on chromatogram. All results reported in ug/l unless otherwise specified. NOTES

Analytical Serv SAMPLE 1D 860190 H20 PAGE 4 RECEIVED: 02/26/86

REPORT Results by Sample

Continued From Above LAB # 86-02-169

NAME Method 625 Acid Compounds

Category

Minimum detection ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit. CGNC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detelinits should be multiplied by conc. factor. FRACTION O1A TEST CODE M625 A
Date & Time Collected 02/25/86

# 

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Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-169

SAMPLE 1D 860190 H20

FRACTION O1A TEST CODE M625 B Date & Time Collected 02/25/86

NAME Method 625 Base/Neutrals

	ED LAK	RESULT	9	ND	Q	QN	Q	S	Q	QN	DN	QN	ND	QN	QN	ND	ND	QN	
handan	MM VERIFIED BY	COMPOUND	N-nitrosodimethylamine	N-nitrosodiphenylamine	N-nitrosodi-n-propylamine	bis(2-ethylhexyl)phthalate	butyl benzyl phthalate	di-butyl phthalate	di-n-octyl phthalate	diethyl phthalate	dimethyl phthalate	benzo(a)anthracene A	benzo(a)pyrene	benzo(b)fluoranthene *	benzo(k)fluoranthene *	chrysene A	acenaphthylene	anthracene B	
8	5100	∢						<b>m</b>	<b>—</b>	<b>m</b>	œ		æ			<b>a</b>	œ	œ	
Date & Ilme collected VZ/ZO	ANALYST INSTRUMENT	SCAN EPA	156 61B	62B	8E9	899	67B	889	869	708	718	728	738	74B	758	76B	778	788	
ollecte		NPDES	418	43B	42B	138	15B	26B	29B	24B	25B	as	89	7B	86 1	18B	2B	38	
ر ا ا ا ا ا	02/27/86 03/12/86	RESULT	ON	N	QN	Q	QN	QN	ON	QN	QN	N	Q.	N	QN	QN	QN	N	
nate	DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	3, 3'dichlorobenzidine	2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	shenyl phenyl ether	
	5CU02169C01						-							~	~		~	40B 4-chlorophenyl	
	CONC. FACTOR	SCAN EPA	18	58	88	86	128	183	208	258	26B	278	288	358	368	378	398	40E	
	DAT CONC.	NPDES	18	4B	46B	338	368	118	168	208	518	228	8 0 0	<b>5</b> 27B	288	29B	318	17B	

Continued From Above

LAB # 86-02-169

REPORT

Analytical Serv Results by Sample

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SAMPLE	SAMPLE 1D 860190 H20	60190		FRACTION O	IA TEST	CODE M625 B	TEST CODE M625 B NAME Method 625 Base/Neutrals
	<b>!</b>			Date & Time Collected 02/25/86	Collecte	d 02/25/86	Category
148		41B	418 4-bromophenyl phenyl ether		ND 8B	798	benzo(ghi)perylene ND
12B		42B	bis(2-chloroisopropyl)e	ther	32B	808	fluorene ND
10B		43B	bis(2-chloroethoxy)methane		ND 44B	818	phenanthrene B ND
34B		528	hexachlorobutad	iene	19B	82B	dibenzo(a, h)anthracene ND
35B		538	hexachlorocyclopentad	iene	37B	828	indeno(1,2,3-cd)pyrene ND
388		54B	isoph	isophorone	ND 458	848	pyrene ND
398		<b>928</b>	naphtha	lene	9		
40B		<b>2</b> 68	nitroben	zene	UN QN		
SURRO	SURROGATE RECOVERIES	ECOVEI	RIES				
	SCAN CODE	CODE	RESULT				
4	484	BS1	d5-nitrobenzene		94		
l	749	BS2	2-fluorobiphenyl	1	100		
00	1325	BS3	d14-terphenyl		106		
6		<b>BS4</b>	d10-bipheny1	pheny1	ļ		

AND DEFINITIONS FOR THIS REPORT NOTES SCAN  $\approx$  scan number or retention time on chromatogram. All results reported in ug/l unless otherwise specified. All results reported in ug/l unless otherwise specified. NO expected at EPA detection limit method 625, (Federal Register, 10/26/84). The benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. A = benzo(a)anthracene and chrysene co-elute in high concentrations.

ON EXPERSIT VICIOUS SOURCE SOURCE SOURCE SOURCE SOURCES DESCRIPTIONS DESCRIPTIONS TRACKES DURING

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Results by Sample

REPORT

LAB # 86-02-169

Continued From Above

NAME Method 625 Base/Neutrals Category

B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CONC. FACTOR: indicates dilution of sample if greater than one (1). Analytical Serv SAMPLE ID 860190 H20

FRACTION O1A TEST CODE M625 B Date & Time Collected 02/25/86

Minimum detection



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02/26/86

SAMPLE 1D 860190 H20

Analytical Serv

REPORT Results by Sample

FRACTION OIA TEST CODE MS 608 Date & Time Collected 02/25/86

NAME Pesticides & PCBs by GC/MS

Category

LAB # 86-02-169

LA PK 2 S 2 RESULT VERIFIED BY COMPOUNDS DETECTED PCB-1242 alpha BHC gamma BHC delta BHC PCB-1254 beta BHC PCB-1221 COMPOUND 107P ANALYST 103P 104P 106P 108P 105P NPDES SCAN 18P 19P 20P DATE EXTRACTED 02/27/86 DATE INJECTED 03/12/86 RESULT 2 dieldrin 4, 4'-DDE 4, 4'-DDD alpha endosulfan chlordane 4, 4'-DDT COMPOUND CONC. FACTOR SCU02169CO1 90P 916 9:2P 936 94P 956 NPDES SCAN 10P **6**P 8

PCB-1248 PCB-1260 PCB-1016 PCB-1232 toxaphene 111P 109P 110P 112P 113P

윋 S 9 밁 S

**21P** 

S 2 2 윋 2 Š

beta endosulfan

96P 97P

12P 14P 146 136 16P 17P

986 **999** 100P 101P

008

endosulfan sulfate

endrin

endrin aldehyde

heptachlor

heptachlor epoxide

22P 23P 24P

RECEIVED 02/26/86 Analytical Serv REPORT LAB # 88-02-169
RECEIVED 02/26/86 RECEIVED Continued From Adove
SAPPLE ID 860190 H20 PRACTION 01A TEST CODE MS 608 NAME Pesticides # POSS by 80/MS
Date & Line Collected 02/25/86 Gategory
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SAMPLE 1D 860191 H20

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-169

NAME Method 625 Acid Compounds Category

FRACTION OZA TEST CODE M625 A
Date & Time Collected 02/25/86

VERIFIED BY LAK COMPOUNDS DETECTED 1	COMPOUND	4-nitrophenol ND	2, 4-dinitrophenol ND	2-methyl-4, 6-dinitrophenol ND	pentachlorophenol ND	phenol 2	>		
L YST MENT	EPA	<b>58A</b>	<b>59A</b>	<b>60A</b>	64A	<b>65A</b>			
ANAL YST INSTRUMENT	NPDES SCAN	7A	ę,	4	94	10A 376			
02/27/86 03/12/86	RESULT	QN	QN	QN	S	Q	Q		RESULT
CO2 DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND
DATA FILE SCUOZ169COZ CONC. FACTOR	CAN EPA	21A	22A 4-	24A	31A	34A	57A	SURROGATE RECOVERIES	SCAN CODE
DATA CONC. F	NPDES SCAN	114	88 A	₹ 4	2A	윩 01	<b>0</b>	SURRDGA	ហ

ANU DEFINITIONS FOR THIS REPORT. SCAN = scan number or retention time on chromatogram. All results reported in ug/l unless otherwise specified. NOTES

2-fluorophenol

**AS2** AS3 AS4

AS1

375 273 **896** 

2, 4, 6-tribromophenol

d3-phenol

RADIAN

RECEIVED: 02/26/86

RESULTS by Sample

Continued From Above

RECEIVED: 02/26/86

RESULTS by Sample

Continued From Above

SAMPLE ID 860191 H20

NO = not detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not performed.

SL = detected in reagent blank, background substraction not be multiplied by conc. factor. factor.

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Results by Sample Analytical Serv

REPORT

LAB # 86-02-169

Responsible \$6666637 20301000 RESSESSENTED RESPONSE RESPO

COMPOUNDS DETECTED BY LAK 2 Q 2 9 2 Q 일 2 윋 S RESULT 2 NAME Method 625 Base/Neutrals N-nitrosodimethylamine N-nitrosodiphenylamine bis(2-ethylhexyl)phthalate di-butyl phthalate di-n-octyl phthalate diethyl phthalate N-nitrosodi-n-propylamine butyl benzyl phthalate dimethyl phthalate benzo(a)pyrene acenaphthylene anthracene benzo(a)anthracene chrysene benzo(b)fluoranthene benzo(k)fluoranthene Category COMPOUND 5100 MM TEST CODE M625 B Date & Time Collected 02/25/86 ANALYST INSTRUMENT EPA **63B** 66B **67B** 61B 62B **68B 869** 70B 71B 72B 73B 74B 75B 76B 77B 788 NPDES SCAN **#38** 29B 18B 42B 13B 15B 26B **24B** 25B DATE EXTRACTED 02/27/86 DATE INJECTED 03/12/86 FRACTION 02A 月 2 밁 2 RESULT ΩN 2 S 2 뮏 윋 2 뮏 밁 2 2 S bis(2-chloroethyl)ether 2-chloronaphthalene 1, 2-dichlorobenzene 40B 4-chlorophenyl phenyl ether acenaph thene benzidine 1, 2, 4-trichlorobenzene hexachlorobenzene 1,4-dichlorobenzene 3,3'dichlorobenzidine 2,4-dinitrotoluene 2,6-dinitrotoluene 1,2-diphenylhydrazine fluoranthene hexachloroethane 1, 3-dichlorobenzene COMPOUND CONC. FACTOR SCU02169C02 SAMPLE ID 860191 H20 EPA 12B 18B 20B 25B 26B 27B 28B 35B 36B 37B 39B **2B** 88 9B NPDES SCAN 46B 33B 36B 11B 16B 20B 21B 22B 23B 27B 28B 29B 31B 17B 012

CONTRACT CONTRACT CONTRACT CONTRACTOR INCOMESCENT PROPERTY CONTRACTOR

# STALL STATE STATES STATES TO STATES STATES

TEST CODE M625 B NAME Method 625 Base/Neutrals	hinhaipi	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1, 2, 3-cd)pyrene ND	purene ND				
FRACTION OZA TEST CODE M625 B	VE/ EJ/ 00	79B	808	818	828	838	848				
TEST C	וערועה	8B	32B	44B	198	37B	45B				
IN OZA		2	2	2	S	Q	일	Q	S		
		41B 4-bromophenyl phenyl ether _	42B bis(2-chloroisopropyl)ether _	bis(2-chloroethoxy)methane	hexachlorobutadiene _	hexachlorocyclopentadiene _	isophorone	naphthalene _	nitrobenzene		RESULT
SAMPLE 1D 860191 H20	!	41B 4-b	42B bis(	43B bis	52B	53B he	548	55B	268	SURROGATE RECOVERIES	SCAN CODE
SAMPLE ID	!	148	128	108	34B	35B	388	398	40B	SURROGATE	SCA

LAB # 86-02-169 Continued From Above

Results by Sample

Analytical Serv

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> ANU DEFINITICAS FOR THIS REPORT. NOTES

or retention time on chromatogram.

Pd in UG/1 unless otherwise specified.

at EPA detection limit method 625, (Federal Register, 10/26/84).

Athene and benzo(k)fluoranthene co-elute.

cene and chrysene co-elute in high concentrations. SCAN = scan number or retention time All results reported in UQ/1 unlend not detected at EPA detection \* = benzo(b)fluoranthene and benzo(A) = benzo(a)anthracene and chrysene

102

d14-terphenyl

d10-biphenyl

d5-nitrobenzene

2-fluorobiphenyl

BSZ BS3 BS4

013

BS1

LAB # 86-02-169 Continued From Above	TEST CODE M625 B NAME Method 625 Base/Neutrals lected 02/25/86 Category	med. 1). Minimum detection
Analytical Serv REPORT Results by Sample	FRACTION OZA TEST CODE M625 B Date & Time Collected 02/25/86	i and phenanthrene co-elute in high concentrations. In reagent blank; background subtraction not performed. Value; less than method detection limit. Indicates dilution of sample if greater than one (1). Minimum detection be multiplied by conc. factor.
PAGE 14 RECEIVED: 02/26/86	SAMPLE 10 860191 H20	B = anthracene and BL = detected in r J = estimated valu CCNC FACTOR: ind limits should be m

## RADIAN

Category FRACTION 02A TEST CODE MS 608 Date & Time Collected 02/25/86 REPORT Results by Sample Analytical Serv SAMPLE 10 860191 H20 RECEIVED: 02/26/86 PAGE 15

NAME Pesticides & PCBs by GC/MS LAB # 86-02-169

2 2 S 밁 COMPOUNDS DETECTED BY LAK RESULT 2 alpha BHC beta BHC gamma BHC delta BHC PCB-1242 PCB-1254 PCB-1232 PCB-1248 PCB-1260 PCB-1221 COMPOUND Ξ EPA 104P 111P ANALYST 103P 103P **d901** 107P **J**801 **109P** 1 10P NPDES SCAN **18P** 22P 4 9 19P 20P 21P 23P DATE EXTRACTED 02/27/86 DATE INJECTED 03/12/86 RESULT 2 2 윋 2 2 皇 밁 밁 뫼 aldrin dieldrin 4, 4'-DDE alpha endosulfan beta endosulfan chlordane 4, 4'-DDD endrin 4, 4'-DDT endosulfan sulfate COMPOUND CONC. FACTOR **89P** 90P 91P 97P 92P 939 94P 95p **496** 98P NPDES SCAN ស្ត ± 015 100 **6**P 7 9 11P 14P 9

PCB-1016 toxaphene

112P 113P

**24P** 25P

밁 밁

endrin aldehyde

899 900 J 1016

1 3P 16P 17P

heptachlor

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heptachlor epoxide

Serv REPORT Results by Sample Analytical Serv PAGE 16 RECEIVED: 02/26/86

SAMPLE ID 860191 H20

LAB # 86-02-169 Continued From Above

NAME Pesticides & PCBs by GC/MS Category

NOTES

ANO DEFINITIONS FOR THIS REPORT. SCAN = scan number on chromatogram. All results reported in micrograms/liter unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). FRACTION 02A TEST CODE MS 608 Date & Time Collected 02/25/86

## MWIGWX

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Results by Sample Analytical Serv

LAB # 86-02-169

SAMPLE ID 860192 H29

FRACTION 03A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 02/25/86 Category

Category

SIOO COMPOUNDS DETECTED BY LAK	COMPOUND	4-nitrophenol ND	2, 4-dinitrophenol ND	2-methyl-4,6-dinitrophenol ND	pentachlorophenol ND	phenol ND				
	EPA	58A	<b>39A</b>	<b>60A</b>	64A	<b>65A</b>				
ANALYST INSTRUMENT	NPDES SCAN	7.A	e e	4	9 <b>A</b>	10A				
02/27/86 03/12/86	RESULT	Q	S	2	S	Q	Q		RESULT	62
PCO3 DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND	d5-phenol_
CONC. FACTOR SCU02169C03	N EPA	21A	22A	24A	31A	34A	57A	SURROGATE RECOVERIES	SCAN CODE	<u>5</u> AS1
DATA F CONC. FAC	NPDES SCAN	114	8 8	<b>4</b>	. (	్ల )1	49 7	SURROGATE	SCA	375

> AND DEFINITIONS FOR THIS REPORT. SCAN = scan number or retention time on chromatogram. All results reported in ug/l unless otherwise specified. NOTES

2-fluorophenol

AS2 ASB AS4

272 970

2, 4, 6-tribromophenol

d3-phenol

LEGGEGG DEPOSITE RESERVED KANKENS PROJECTA PROPERTY

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Analytical Serv PAGE 18 RECEIVED: 02/26/86

REPORT Results by Sample

LAB # 86-02-169 Continued From Above

Date & Time Collected 02/25/86 FRACTION 03A SAMPLE 1D 860192 H20

NAME Method 625 Acid Compounds Category

TEST CODE M625 A

Minimum detection NO = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit. CCNC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detellimits should be multiplied by conc. factor.

## RADIAN

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SAMPLE 1D 860192 H20

Analytical Serv REPORT Results by Sample

LAB # 86-02-169

NAME Method 625 Base/Neutrals Category FRACTION 03A TEST CODE M625 B Date & Time Collected 02/25/86

P. I B.	STOO COMPOUNDS DETECTED BY LAK	COMPOUND RESULT	N-nitrosodimethylamineND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate ND	butyl benzyl phthalate <u>ND</u>	di-butyl phthalateND	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A <u>ND</u>	benzo(a)pyrene <u>ND</u>	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A <u>ND</u>	acenaphthylene <u>ND</u>	anthracene B <u>ND</u>
	ANALYST	AN EPA	<b>61B</b>	62B	9E9	66B	<b>67B</b>	889	86 <del>9</del>	70B	718	72B	738	748	75B	76B	77B	788
		NPDES SCAN	41B	<b>43B</b>	42B	138	15B	26B	29B	248	25B	<b>SB</b>	<b>89</b>	78	98	188	2B	38
	02/27/86 03/12/86	RESULT	QN	QN	Q	QN	QN	QN	Q	QN	QN	QV	QN	Q	QV	N	Q	QN
	$\sim$	_	1							ı	- 1	•	•		- 1	- 1		
	DATE EXTRACTED ( DATE INJECTED		acenaphthene _	benzidine	-trichlorobenzene	hexachlorobenzene .	hexachloroethane .	chloroethyl)ether	chloronaphthalene_	2-dichlorobenzene	3-dichlorobenzene	4-dichlorobenzene	dichlorobenzidine	?, 4-dinitrotoluene	.6-dinitrotoluene _	diphenylhydrazine	fluoranthene _	enyl phenyl ether
	DATE EXTRACTED DATE INJECTED	COMPOUND		O		N	han	bis(2-chloroethyl)ether	9	e	5		in	2,4-dinitrotoluene _	2,6-dinitrotoluene	Ļ	Ę	phenyl e
	CTED			O	N	N	han		len	zen	zen	7	3'dichlorobenzidin	-4	-	ızin	Ę	4

PAGE 20	දි			Analytical Serv	REPORT	IRT	LAB # 86-02-169
RECEI	RECEIVED: 02/26/86	02/26/	98/	Results by Sample	y Sample		Continued From Above
SAMPL	SAMPLE 1D 860192 H20	360192	2 H20	FRACTION 03A	TEST C	TEST CODE M625 B	NAME Method 625 Base/Neutrals
				Date & Time Collected 02/25/86	ollected	02/25/86	Category
148		41B	4-bromophenyl phenyl	1 phenyl ether ND	88	79B	benzo(ghi)perylene ND
12B		42B	bis(2-chloroisopropyl)et	sopropyl)ether ND	32B	808	fluorene ND
108		43B	bis(2-chloroethoxy)meth	ethoxy)methane ND	44B	818	phenanthrene B ND
348		52B	hexac	hexachlorobutadiene ND	19B	828	dibenzo(a, h) anthracene ND
358		<b>23B</b>	hexachlorocyclopentadi	yclopentadiene ND	37B	838	indeno(1,2,3-cd)pyrene ND
388		548		isophorone ND	45B	848	pyrene ND
39B		338		naphthalene ND	•••••		
40B		26B		nitrobenzene ND			
SURRO	SURROGATE RECOVERIES	RCOVE	RIES			-	
	SCAN CODE	CODE	RE	RESULT			
4	489	851	•	d5-nitrobenzene 82			
<u> </u>	750	BS2	Ċ	2-fluorobiphenyl 90			
02	1325	BS3		d14-terphenyl 110			
0		<b>BS4</b>		d10-biphenyl			
NOTES	ANO L	EFINI	NOTES AND DEFINITIONS FOR THIS REPORT.	S REPORT.			

SCAN = scan number or retention time on chromatogram. All results reported in -uq/l unless otherwise specified. All results reported in -uq/l unless otherwise specified. Not detected at EPA detection limit method 625, (Federal Register, 10/26/84). + = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. A = benzo(a)anthracene and chrysene co-elute in high concentrations.

REPORT LAB # 86-02-169 nple Continued From Above	TEST CODE M625 B NAME Method 625 Base/Neutrals ected 02/25/86 Category	co-elute in high concentrations. background subtraction not performed. method detection limit. on of sample if greater than one (1). Minimum detection conc. factor.
Analytical Serv Results by Sample	FRACTION 03A Date & Time Coll	and phenanthrene co-elute in high co- in reagent blank; background subtract value; less than method detection lim indicates dilution of sample if grea be multiplied by conc. factor.
PAGE 21 RECEIVED: 02/26/86	SAMPLE 1D 860192 H20	B = anthracene BL = detected i J = estimated v CCNC FACTOR: limits should b

## 

LAB # 86-02-169	FRACTION 03A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected 02/25/86 Category
REPORT s by Sample	R Collected 02/25/86
Analytical Serv Results by	FRACTION OF Date & Time
PAGE 22 RECEIVED: 02/26/86	SAMPLE 1D 860192 H20

A P 윋 윋 S 2 S S 2 2 2 2 Q 2 RESULT VERIFIED BY COMPOUNDS DETECTED PCB-1242 PCB-1232 PCB-1248 gamma BHC PCB-1254 PCB-1260 PCB-1016 alpha BHC beta BHC delta BHC toxaphene PCB-1221 COMPOUND Ξ EPA 106P ANALYST **103P** 104P 105P 107P 108P 109P 110P 111P 112P 113P NPDES SCAN 4 S D 186 19P 20P 21P 22P 23P **24P** 2 RESULT Ž 2 S 2 月 S 밁 N DATE EXTRACTED DATE INJECTED alpha endosulfan aldrin 4, 4'-DDE 4, 4'-DDD beta endosulfan endrin dieldrin chlordane 4, 4'-DDT endosulfan sulfate endrin aldehyde heptachlor heptachlor epoxide COMPOUND CONC. FACTOR **B9P** 90P 916 92P 93P 94P 95P 96P **97P 98**P 99P 100P 101P SCAN NPDES 022 022 100 **6**P 9 14p 135 16P 17P 11P

SAMPLE 1D 860192 H20 PAGE 23 RECEIVED: 02/26/86

Analytical Serv

REPORT Results by Sample

LAB # 86-02-169 Continued From Above

NAME Pesticides & PCBs by GC/MS Category

NOTES

AND DEFINITIONS FOR THIS REPORT. SCAN = scan number on chromatogram. All results reported in micrograms/liter unless otherwise specified. NO = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). FRACTION 03A TEST CODE MS 608 Date & Time Collected 02/25/86

PAGE 24
RECEIVED: 02/26/86
SAMPLE ID 860194 H20
Results by Sample
SAMPLE ID 860194 H20
PAGE 24
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SAMPLE ID 860194 H20
PAGE 24
RECEIVED: 02/26/86
SAMPLE ID 860194 H20
PAGE 24
RECEIVED: 02/26/86

FRACTION 04A TEST CODE M625 A
Date & Time Collected 02/25/86

NAME Method 625 Acid Compounds Category

VERIFIED BY LAK COMPOUNDS DETECTED	COMPOUND RESULT	4-nitrophenol ND	2, 4-dinitrophenol ND	2-methyl-4,6-dinitrophenol ND	pentachlorophenol ND	/phenol1								
MENT	EPA	<b>58A</b>	39A	<b>60A</b>	<b>64A</b>	<b>65A</b>								<del>-</del>
ANAL YST INSTRUMENT	SCAN					377								am. pecified
H	NPDES SCAN	7	S.	4	<b>9</b>	10A								1007 and
02/27/86 03/11/86	RESULT	Q	2	S	Q	S	Q		RESULT	87	78	127		on chromatogram s otherwise spe
DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND	d5-phenol	2-fluorophenol	2, 4, 6-tribromophenol	d3-phenol	time unles
69004	COMF	2, 4, 6-	4-chloro-		2, 4-	2, 4-		ស្ល	COMF			2,4,6		NOTES AND DEFINITIONS FOR THIS REPORT. SCAN = scan number or retention All results reported in ug/l
DATA FILE SCU02169C04 CONC. FACTOR	EPA	21A	22A	24A	31A	34A	57A	SURROGATE RECOVERIES	CODE	AS1	ASS	AS3	AS4	EFINITIC = scan n esults r
TA FIL	SCAN							GATE R	SCAN CODE	375	272	970		ANU E SCAN All r
CONC.	NPDES SCAN	11A	₩	₹ 4	δ. 8	8 2	49 49	SURRO						NOTES
				7	U	, L.	2							

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FRACTION 04A TEST CODE M625 A
Date & Time Collected 02/25/86 REPORT Analytical Serv Results by Sample SAMPLE ID 860194 H20 02/26/86 PAGE 25 Received:

LAB # 86-02-169 Continued From Above

NAME Method 625 Acid Compounds

Category

11/26/84)

Minimum detection NO = not detected at EPA detection limit method 625, (Federal Register, BL = detected in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit. CONC. FACTOR: indicates dilution of sample if greater than one (1). Milimits should be multiplied by conc. factor.

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Analytical Serv

LAB # 86-02-169

VERIFIED BY LAK COMPOUNDS DETECTED NAME Method 625 Base/Neutrals N-nitrosodimethylamine dimethyl phthalate acenaphthylene N-nitrosodiphenylamine N-nitrosodi-n-propylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate √ di-butyl phthalate di-n-octyl phthalate diethyl phthalate benzo(a)pyrene benzo(a)anthracene benzo(b)fluoranthene benzo(k)fluoranthene anthracene Category COMPOUND TEST CODE M625 B Date & Time Collected 02/25/86 ANALYST INSTRUMENT EPA 61B 62B 63B 66B 67B 70B 71B 73B 74B 75B 76B 77B 78B **68B 869** 72B NPDES SCAN 1178 Serv REPORT Results by Sample 26B **24B** 25B **#3B** 29B 12B 15B **6B** DATE EXTRACTED 02/27/86 DATE INJECTED 03/12/86 FRACTION 04A 윋 2 일 RESULT 月 2 2 2 40B 4-chlorophenyl phenyl ether benzidine 1, 3-dichlorobenzene 1, 4-dichlorobenzene 3, 3'dichlorobenzidine 2,4-dinitrotoluene 1,2-diphenylhydrazine fluoranthene acenaphthene 2-chloronaphthalene 1, 2-dichlorobenzene 2,6-dinitrotoluene 1, 2, 4-trichlorobenzene hexachlorobenzene hexachloroethane bis(2-chloroethyl)ether COMPOUND DATA FILE SCU02169C04 SAMPLE 1D 860194 H20 PAGE 26 RECEIVED: 02/26/86 EPA 26B 278 288 35B 36B 37B 128 18B 20B 25B 39B NPDES SCAN 31B 17B 46B 33B 36B 11B 16B 20B 21B 22B **23B** 27B 28B 29B 026

2

RESULT

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LAB # 86-02-169 Continued From Above	NAME Method 625 Base/Neutrals Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1,2,3-cd)pyrene ND	Dyrene					
RT	TEST CODE M625 B ected 02/25/86	79B	808	818	828	838	848					
REPORT Sample	TEST C	88	32B	44B	19B	37B	45B					
Analytical Serv REP	FRACTION 04A TEST CODE M625 Date & Time Collected 02/25/86	4-bromophenyl phenyl ether ND	bis(2-chloroisopropyl)ether ND	bis(2-chloroethoxy)methane ND	hexachlorobutadiene ND	hexachlorocyclopentadiene ND	isapharone ND	naphthalene ND	nitrobenzene ND		RESULT	d5-nitrobenzene 106
PAGE 27 RECEIVED: 02/26/86	SAMPLE 1D 860194 H20	14B 41B 4-brom	12B 42B bis(2-c	10B 43B bis(2-	348 528	35B 53B hexac	38B 54B	398 558	408 568	SURROGATE RECOVERIES	SCAN CODE	488 851

AND DEFINITIONS FOR THIS REPORT. NOTES SCAN = scan number or retention time on chromatogram. All results reported in  $\frac{10}{10}$  unless otherwise specified. Not reported in  $\frac{10}{10}$  unless otherwise specified. Not detected at EPA detection limit method 625, (Federal Register, 10/26/84). A = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. A = benzo(a)anthracene and chrysene co-elute in high concentrations.

122

d14-terphenyl d10-b1phenyl

2-fluorobiphenyl

**BS**2 **BS3** 854

749 1324

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Analytical Serv

REPORT Results by Sample

LAB # 86-02-169 Continued From Above

SAMPLE 1D 860194 H20

FRACTION 04A TEST CODE M625 B Date & Time Collected 02/25/86

NAME Method 625 Base/Neutrals Category

Minimum detection B = anthracene and phenanthrene co-elute in high concentrations.
BL = detected in reagent blank; background subtraction not performed.
J = estimated value; less than method detection limit.
CCNC. FACTOR: indicates dilution of sample if greater than one (1).

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02/26/86 RECEIVED:

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-169

SAMPLE 1D 860194 H20

NAME Pesticides & PCBs by GC/MS Category FRACTION 04A TEST CODE MS 608 Date & Time Collected 02/25/86

A P S 밁 2 Q 2 S RESULT VERIFIED BY COMPOUNDS DETECTED alpha BHC beta BHC gamma BHC delta BHC PCB-1242 PCB-1254 PCB-1232 PCB-1248 PCB-1260 PCB-1016 toxaphene PCB-1221 COMPOUND Ξ EPA 111P **ANALYST** 104P 105P 106P 107P 108P 109P 110P 112P 113P 103P NPDES SCAN **21P** 256 **18**P 19P 200 22P 23P 24P 4 DATE EXTRACTED 02/27/86 DATE INJECTED 03/12/86 2 밁 윋 RESULT 2 S 2 S S 밁 aldrin dieldrin 4, 4'-DDE 4, 4'-DDD alpha endosulfan beta endosulfan endrin 4, 4'-DDT endosulfan sulfate endrin aldehyde heptachlor heptachlor epoxide chlordane COMPOUND DATA FILE SCU02169C04 CONC. FACTOR EPA 90P 916 92P 93P 94P 936 96P 97P **89**p 986 99P 100P 101P NPDES SCAN 10P 98 12P 14P 14P 135 16P 17P 9 029

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Analytical Serv
REPORT

LAB # 86-02-169

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Analytical Serv
Results by Sample
Continued From Above

SAMPLE ID 860194 H20

FRACTION 04A

TEST CODE MS 608

NOTES AND DEFINITIONS FOR THIS REPORT

NOTES AND DEFINITIONS FOR THIS REPORT

All results reported in micrograms/liter unless otherwise specified

All results reported in micrograms/liter unless otherwise specified

All results reported at EPA detection limit method 625, (Federal Register, 12/3/79).

## A STATE AND THE SECOND CONTRACTORS OF THE SECOND SE RADIAN RADI

FRACTION 05A TEST CODE M625 A NAME Method 625 Acid Compounds LAB # 86-02-169 Category Date & Time Collected not specified REPORT Results by Sample Analytical Serv SAMPLE ID Reagent Blank 625 PAGE 31 RECEIVED: 02/26/86

WUL COMPOUNDS DETECTED BY LAK	COMPOUND	4-nitrophenol ND	2, 4-dinitrophenol ND	2-methyl-4,6-dinitrophenol ND	pentachlorophenol ND	. phenol ND			
	EPA	<b>58A</b>	<b>59A</b>	<b>60A</b>	64A	63A			
ANAL YST INSTRUMENT	NPDES SCAN	7 <b>A</b>	5A	4 4	9A	10A			
02/27/86 03/12/86	RESULT	Q	QN	QN	Q	QN	QN		RESULT
DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND
217103	Ü	2, 4,	4-ch10					IES	J
AR SCUC	EPA	21A	22A	24A	314	34A	57A	RECOVER	CODE
CONC. FACTOR	NPDES SCAN	114	8A	1.4	2A	9 <b>.</b>	<b>6A</b>	SURROGATE RECOVERIES	SCAN CODE

ANO DEFINITIONS FOR THIS REPORT. SCAN = scan number or retention time on chromatogram. All results reported in ug/l unless otherwise specified. NOTES

146

2, 4, 6-tribromophenol

AS3 AS4

696

**AS2** AS1

272 375

031

2-fluorophenol

d5-phenol

d3-phenol

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Analytical Serv

REPORT Results by Sample

LAB # 86-02-169 Continued From Above

FRACTION 05A SAMPLE ID Reagent Blank 625

Date & Time Collected not specified TEST CODE M625 A

NAME Method 625 Acid Compounds Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank; background subtraction not performed. Use estimated value; less than method detection limit. CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detellimits should be multiplied by conc. factor.

Minimum detection

032

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PAGE 33 RECEIVED: 02/26/86

FRACTION 05A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified LAB # 86-02-169 Analytical Serv REPORT Results by Sample SAMPLE ID Reagent Blank 625

VERIFIED BY LAK COMPOUNDS DETECTED	COMPOUND RESULT	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate ND	butyl benzyl phthalate ND	di-butyl phthalate ND	di-n-octyl phthalate ND	diethyl phthalate <u>ND</u>	dimethyl phthalate ND	benzo(a)anthracene A ND	benzo(a)pyrene ND	benzo(b)fluoranthene * <u>ND</u>	benzo(k)fluoranthene * ND	chrysene A <u>ND</u>	acenaphthylene <u>ND</u>	anthracene B ND
ANALYST INSTRUMENT	SCAN EPA	618	62B	8E9	999	67B	889	869	708	71B	728	738	74B	758	76B	778	788
	NPDES (	418	43B	42B	13B	158	26B	29B	248	25B	5B	<b>89</b>	7B	9.8	188	28	33
02/27/86 03/12/86	RESULT	QN	QN	QN	QN	QN	Q	QN	N	Q	Q	QN	QN	QN	QN	N	N
DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	3,3'dichlorobenzidine	2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	40B 4-chlorophenyl phenyl ether
DATA FILE SCU02171003																	4-chlorop
ACTUE 50	SCAN EPA	18	SB	88	98	128	188	208	258	26B	278	288	358	368	378	39B	408
DATE	NPDES S	18	48	46B	338	36B	118	168	802 <b>4</b>	<b>⊃</b> 21B	33 33	238	27B	28B	298	318	178

DEFENDED TOTAL MANAGEMENT DEPOSITE DESIGNATION

## RADIAN

LAB # 86-02-169 Continued From Above

Analytical Serv REPORT Results by Sample

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TEST CODE M625_B NAME Method 625 Base/Neutrals	led Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1, 2, 3-cd)pyrene ND	pyrene ND								
M625 B	specified	79B	808	818	82B	838	848								
CODE	not														
TEST	llected	88	328	448	19B	37B	45B								
FRACTION 05A	Date & Time Collected not	ether ND	)ether ND	nethane ND	adiene ND	adiene	horone ND	halene ND	enzene ND			benzene 79	iphenyl 104	rphenyl 128	iphenyl
SAMPLE ID Reagent Blank 625		4-bromophenyl phenyl	bis(2-chloroisopropyl)	bis(2-chloroethoxy)me	hexachlorobuta	hexachlorocyclopenta	isoph	naphth	nitrobe	IES	RESULT	d5-nitrob	2-fluorobil	d14-terp	d10-bip
eagent		418	42B b	43B	528	53B	24B	55B	26B	RECOVERIES	CODE	BS1	BS2	BS3	BS4
10 8										TE R	SCAN CODE	375	749	1324	
SAMPLE		148	128	108	34B	358	388	39B	40B	SURROGATE	Ø	4	·	-a 03	4

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram. All results reported in  $\frac{\sqrt{4}}{\sqrt{4}}$  unless otherwise specified. All results reported in  $\frac{\sqrt{4}}{\sqrt{4}}$  unless otherwise specified. All results reported in  $\frac{\sqrt{4}}{\sqrt{4}}$  unless otherwise specified. (Federal Register, 10/26/84). All  $\frac{\sqrt{4}}{\sqrt{4}}$  in the concentrations. All  $\frac{\sqrt{4}}{\sqrt{4}}$  is benzo(a)anthracene and chrysene co-elute in high concentrations.

265/65/11 2266661 2252624 1887/2014 1887/2014 1888/2014

FRACTION	Reagent Blank 625	SAMPLE ID
Analytical Serv Resui	02/26/86	PAGE 35 RECEIVED:

	Analytical Serv REPORT	LAB # 86-02-169
)2/26/86	Results by Sample	Continued From Abov
Reagent Blank 62	5 FRACTION 05A TEST CODE M625 B NAME Method 625 Base/No	B NAME Method 625 Base/N
	Date & Time Collected not spec	ified Category
acene and p cted in rea	henanthrene co-elute in high concentrations. gent blank; background subtraction not performed.	s. formæd.
FACTOR: indic should be mul	tess vial method detection illust.  ates dilution of sample if greater than on tiplied by conc. factor.	e (1). Minimum detection

# RADIAN

PAGE 36 RECEIVED: 02/26/86

Analytical Serv REPORT Results by Sample

LAB # 86-02-169

EIVED: 02/26/86

SAMPLE ID Reagent Blank 625

TALL SO MOTTONOL

FRACTION 05A TEST CODE MS 608 NAME Date & Time Collected not specified

Category

NAME Pesticides & PCBs by GC/MS

置 VERIFIED BY COMPOUNDS DETECTED Ξ ANALYST DATE EXTRACTED 02/27/86 DATE INJECTED 03/12/86 CONC. FACTOR

皇 문 뫼 밁 밁 2 밁 밁 윋 밁 RESULT PCB-1242 alpha BHC PCB-1254 PCB-1232 PCB-1248 PCB-1260 PCB-1016 toxaphene beta BHC gamma BHC delta BHC PCB-1221 COMPOUND 104P 106P 107P 108P 109P 110P 111P 112P 113P 103P 105P NPDES SCAN 18P 19P 20P 216 22P 23P **24P** 25P 4 Ч 윋 RESULT S 2 2 뮏 윋 뮏 뮏 뮏 윋 밁 4, 4'-DDE 4, 4'-DDD alpha endosulfan beta endosulfan heptachlor epoxide aldrin dieldrin chlordane 4, 4'-DDT endosulfan sulfate endrin endrin aldehyde heptachlor COMPOUND 90P 916 **9**E6 936 96P 97P 98P 101P 92P 94P **99**P 100P NPDES SCAN 036 912 914 914 10P **6**P 14P 11P 13P 16P 17P 7 8 9

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RESELICITED RESPONSE REPORT
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## \$55631\_\$2532353 85555553 55555555 88555551\_(K)\$2555551 K(K)\$5556 35655551\_(K)

LAB # 86-02-176	GENTIFIED DY CONTACT CONDINER COT EPA 601: -03; for EFA 602:	less than 5 times the detection limit such low values ranges between	within acceptable limits indicating INAMES used on this report
Analytical Serv 04/04/86 16:33:19	PREPARED Radian Analytical Ser- BY 8501 McPac Blvd. BY 8501 McPac Blvd. P. O. Box 9948 AUStin, lexas 78766 ATTEN PHONE (512) 454-4797 Dynamics) Second column confirmation for01 and -02	Footnotes an ndicates a value less ential error for such and 100%.	Analytical Serv TEST CODES and NAMES used on the same of within acceptable an interferent present.  Analytical Serv TEST CODES and NAMES used on the same of an interferent present.  AG F Silver, 1CPES AG Ansenic, 10 m level BA F Barium, 1CPES CR E Chromium, 1CPES DG3020 Digestion by Method 50100 GC 501 EPA Method 501/GC GC 501 EPA Method 501/GC HC IR Hydrocarbons HG 1R 011 and Grease, Infrared PB GA Lead, 10 w level SE GA Selenium, 10 m level SE GA Selenium, 10 m level
PAGE 1 RECEIVED: 02/27/86	REPORT Kadian 10 B1 4 Austin Allent Lerry French CLIENT Plant 4 FACILITY Carswell AFB (Gen Dyne	WURK ID groundwater TAKEN WJ, FS TRANS Fed Ex TYPE P. D. # 212-027-27-40 INVUICE under sepa ate cover	SAMPLE IDENTIFICATION  01 840195  02 840196  03 840197  04 850199  05 850199

# IN MICHAEL SECTION SEC

Analytical Serv RESULIS BY Centered units) 0.010 0.011 0.046 0.047 0.19 0.077 0.075 0.070 0.075 0.070 0.075 0.070 0.076 0.070 0.075 0.070 0.077 0.075 0.077	LAB # 85-02-175	units) (entered units) (entered units)	0.003* 0.020 0.008*	€. 003	0.072 0.18 0.093	C. 002 0. 003* <. 002	0.006* 0.17 0.014*	2/86 03/12/86 03/12/86	3/86 03/18/86 03/18/86		<. 0002 <. 0002 <. 0002		0.007 0.080 <.001e	C. 004@ C. 004 C. 004
Sample 0 centered un 0.01 0.04 0.07 0.07 03/12/8 03/18/8 0.02 0.02	د ت	1 4						03/12/86 03/12/86	03/18/86 03/18/86	CI CI		₽		
GE 2 GE 1VED: AG E UG 7 m1 CR E UG 3020 date con date con HG CA HG	PAGE 2 RECEIVED: 02/27/86	Units Cample	0.010	0.046	0.19	₹.002	0.075				₹. 0002	<u> </u>	0.024	₹. 004

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LAB # 86-02-176						
PAGE 3 RECEIVED: 02/27/86 RECEIVED: 02/27/86						
Analytical Analytical	Sample (entered u	<b>-</b>				
PAGE 3 RECEIVED: 02/27/86	TEST COUF	ONG IR	4 041			)



132223333 KSUSS

LAB # 85-02-176

Trichloroethene 0 74 VERIFIED BY COMPOUNDS DETECTED Sromoform 2-Chloroethylvinyl Ether Chlorobenzene 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC Date & Time Collected 02/25/86 cis-1, 3-Bichloropropens 1, 1, 2, 2-Tetrachloroethane letrachloroethylene Dibromochloromethane 1, 1, 2-Trichlorosthans COMPOUND ANAL.YST INSTRUMENT SCAN Serv Results by Sample DATE INJECTED 02/27/86 GŽ. S 2 2 윋 ĝ 2 ĝ, ĝ Ŝ Ê RESUL 1 Analytical Serv trans-1, 2-Dichloroethene Chloromethane Bromomethane Chloroethane Trichlorofluoromethane 1, 1-Dichloroethene Chloroform 1, 1, 1-lrichloroethane trans-1, 3-Dichloropropene Vinyl Chloride 1,1-Dichloroethane 1, 2-Dichloroethane Carbon Tetrachloride Bromodichloromethane 1, 2-Dichloropropane Methylene Chloride CUMPOUND RECEIVED: 02/27/86 SAMPLE 10 860195 DATA FILE CONC. FACTOR SCAN PAGE 4 042

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RECEIVED: 02/27/86 PAGE 5

SAMPLE ID 860195

Serv Results by Sample Analytical Serv

LAB # 86-02-176 Continued From Above

FRACTION 01A TEST CODE GC 601 NAME EPA Method 601/GC Date & Time Collected 02/25/86

NOTES AND DEFINITIONS FOR THIS REPORT

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-eluta All results reported in  $\frac{\log L}{L}$  unless otherwise specified. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). SCAN = scan number or retention time on chromatogram.

#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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RECEIVED: 02/27/86

serv Results by Sample Analytical Serv

LAB # 85-02-175

SAMPLE 1D 860195

FRACTION 01C TEST CODE GC 602 NAME EPA Method 602/GC Date % lime Collected 02/25/86

CONC FACTOR

DATA FILE

DATE INJECTED 02/27/86

INSTRUMENT ANALYST

VERIFIED BY COMPOUNDS DETECTED

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RESULT

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SCAN

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Benzene

1, 4-Dichlorobenzene

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1, 3-Bichlorobanzena

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Toluene

1, 2-Bich lorobenzene

Ethyl Benzene

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Q'

Chlorobenzene

MOTES AND DEFINITIONS FOR THIS REPORT

stan number or retention time on chromatogram.

All results reported in  $\frac{100}{100}$  unless otherwise specified. We anot detected at EPA detection limit method 602, (Federal Register, 1273/79)

PAGE / RECEIVED: 02/27/86

serv Results by Sample Analytical Serv

LAB # 86-02-176

FRACTION 02A TEST CODE GC 601 NAME EFA Method 601/GC Date & Time Collected 02/25/86 ANAL VST SAMPLE 11) 860196 045  $\frac{1}{2}$ 

YST G COMPOUNDS DETECTED BY NOT SELECTED BY NOT SELECTED STATES OF SEL	COMPOUND RESULT	Trichloroethene 0.84	Dibromochloromethane *MD	1,1,2-Trichloroethane * 16	cis-1,3-Dichloropropene * MB	2-Chloroethylvinyl Ether ME	Bromoform [12]	1,1,2,2-Tetrachloroethane # 100	Tetrachlorosthylene # 148	Chlorobeniene 145
ANALYSI INSTRUMENI	SCAN	<b>m</b> ;	1			1 1 1			:	+
	COMPOUND RESULT	Chloromethane ND	Bromamethane ND	Vinyl Chloride ND	Chloroethane ND	Methylene Chloride ND	TrichlorofluoromethaneND	1,1-Dichloroethene ND	1,1-Dichloroethane ND	trans 1.2 Dichloroethene 2.02 :
DATA FILE CONC FACTOR _	SCAN	!			,	1	!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!	!	,	

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1, 2-Dichlorobenzene

17

1, 3-Dichlorobenzene

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Chloroform

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1,2-Dichloroethane

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i. 1. 1-Trichloroethane

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1,4-Bichlorobenzene

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Carbon letrachloride

Bromodichloromethane

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1,2-Dichloropropane

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trans-1, 3-Dichloropropene

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PAGE 8 RECEIVED: 02/27/86

Serv REPURI Results by Sample Analytical Serv

Continued From Above LAB # 86-02-176

SAMPLE ID 860196

FRACTION O2A TEST CODE GC 601 NAME EPA Method 601 GC Date % lime Collected 02/25/85

NUTES AND DEFINITIONS FOR THIS REPORT

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-slute All results reported in  $\underline{uq/l}$  unless otherwise specified. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79) #1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute. SCAN - scan number or retention time on chromatogram.



Analytical Serv

LAB # 86-02-176

VERIFIED BY COMPOUNDS DETECTED FRACTION ORC TEST CODE GC 602 NAME EPA Method 602/GC Date & Time Collected 02/25/86 1, 4-Dichlorobenzene 1. 3-Dichlorobenzene 1.2-Bichlorobenzene COMPOUND INSTRUMENT **ANALYS1** SCAN Serv REPORT Results by Sample DATE INJECTED 02/27/86 2 Î. ĝ, RESULT Ethyl Benzene COMPOUND Benzene Toluene RECEIVED: 02/27/86 SAMPLE 110 860196 DATA FILE CONC. FACTOR SCAN

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RESULT

135

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79) All results reported in \_\_\_\_yg/l unless otherwise specified SCAN - stan number or retention time on chromatogram. NOTES AND DEFINITIONS FOR THIS REPORT

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Chlorobenzene

ESSESSED INVITATION DESCRIPTION

## SOME TO SOME SECOND RANDIA CA

RECEIVED: 02/27/86 PAGE 10

serv Results by Sample Analytical Serv

LAB # 86-02-176

FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC Date % 11me Collected 02/25/86 Category SAMPLE 10 860197

i) Z VERIFIED BY NO. ŭ, 38. 7. E E T. RESULT Trichloroethene 75.1 Bromoform Chlorobenzene 2-Chloroethylvinyl Ether cis-1,3-Dichloropropens Tetrachloroethylene 1, 1, 2, 2 Tetrachloroethane Dibromochloromethans 1, 1, 2-Trichlorosthans COMPOUND ANALYS1 INSTRUMENT SCAN : DATE INJECTED 02/22/86 일 2 ĝ Ê Q. QN RESULT Chloromethane **Bromomethane** Vinyl Chloride Chloroethane Methylene Chloride trans-1, 2-Dichloroethene 1richlorofluoromethane 1, 1-Dichloroethane 1, 1 -Dichloroethene COMPOUND DATA FILE CONC FACTOR SCAN

237 1, 4-Dichlorobeniene 1, 3-Filch Lorobenzene 1, 2-Bichlorobenzene ĝ Ŝ Chloroform 1.2 Bichloroethane 1, 1, 1-1 richloroethane FINIS SEEDS STANKED DEPARTED DIVISION DISCOUNT DISCOUNT DISCOURS DICCOUNT NOWDOWN FORESCOND NOWDOWN FORESCOND NAME

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trans-1, 3-Dichloropropene

Bromodichloromethane

Carbon letrachloride

1.2-Dichloropropane

Analytical Serv

serv Results by Sample

LAB # 86-02-176 Continued From Above

SANPLE ID 860197

PAGE 11 RECEIVED: 02/27/86

FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/90 Date & Time Collected 02/25/86

NOTES AND DEFINITIONS FOR THIS REPORT.

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-eluta All results reported in  $\frac{44/4}{100}$  unless otherwise specified. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79) #1,1,2,2—tetrachloroethane and tetrachloroethylene comelute. SCAN = scan number or retention time on chromatogram.

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NAME OF A STANK

RECEIVED: 02/27/86

SANPLE ID 860197

CONC. FACTOR DATA FILE

Serv REPORT Analytical Serv

LAB # 86-02-176

FRACTION 03C TEST CODE GC 602 NAME EPA Nethod 602/GC Date & lime Collected 02/25/86

Category

**ANALYST** INSTRUMENT

COMPOUNDS DETECTED

DATE INJECTED 02/27/86

VERIFIED BY 12CL.

COMPOUND

SCAN

RESULT

QN

Benzene

SCAN

COMPOUND

RESULT

1, 4-Dichlorobenzene

17.

1. 3-Bichlorobenzene

g

loluene

1.2-Bichlorobenzena

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Ethyl Benzene

Chlorobenzene

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NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram

All results reported in \_\_\_\_\_uq/{ unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

RECEIVED: 02/27/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-176

TEST CODE GC 601 NAME EPA Method 501/GC category Date & Time Collected 02/25/86 FRACTION 04A SAMPLE ID 850198

VERIFIED BY MOL RESULT Trichloroethene COMPOUND ANALYS1 INSTRUMENT SCAN DATE INJECTED 02/27/86 RESULT COMPOUND ك CONC. FACTOR SCAN

2 ij 2 0.13 2-Chloroethylvinyl Ether Dibromochloromethane 1, 1, 2-Trichlorosthane cis-1, 3-Dichloropropene S 2 2 S 2 Chloromethane Bromomethane Vinyl Chloride Ch loroethane Methylene Chloride

Bromoform 1, 1, 2, 2 -Tetrachloroethane Tetrachlorosthylene 2 1, 1-Dichloroethene Trich lorofluoromethane 1, 1-Dichloroethane

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Chlorobenzene 1, 3-Bichlorobenzene trans-1, 2-Dichloroethene

1, 4-Bichlorobenzene 1, 2-Dichlorobenzene Chloroform 1,2-Dichloroethane

Bromodichloromethane 1, 1, 1-1 richloroethane Carbon letrachloride I, ≧-Dichloropropane

trans-1, 3-Dichloropropene

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KOOD EEGIGEK AMANAAL GEGESTAL DEGESTAG MADDANI TOTOOOG PARKETT VALLEGET BESTELL WINDOW

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PAGE 14 RECEIVED: 02/27/86

Analytical Serv

r serv Results by Sample

LAB # 85-02-176 Continued From Above

SAMPLE ID 860198

FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC Date % Time Collected 02/25/86

NOTES AND DEFINITIONS FOR THIS REPORT

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute All results reported in uq/l unless otherwise specified. Ni) = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). SCAN = scan number or retention time on chromatogram.

#1,1,2,2~tetrachloroethane and tetrachloroethylene co-clute.

RECEIVED: 02/27/86

Results by Sample Analytical Serv

REPORT

LAB # 86-02-176

SANPLE 10 860198

FRACTION 04C TEST CODE GC 602 NAME EPA Method 602/GC Date % lime Collected 02/25/86

CONC FACTOR DATA FILE

DATE INJECTED 02/27/86

INSTRUMENT ANALYST

VERIFIED BY COMPOUNDS DETECTED

SCAN

COMPOUND

RESULT

SCAN

COMPOUND

1, 4-Dichlorobenzene

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Benzene

RESULT

053

lolvene

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Ethyl Benzene

1, 2-Bichlorobenzene

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1, 3-Dichlorobenzene

Chlorobenzene

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NUTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in \_\_\_ug/L unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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Analytical Serv

RECEIVED: 02/27/86

PACE 16

LAB # 86-02-176

ĬŢ. 0 10 Ÿ ŭ 170 0 14 Ü ELE. Ü) RESULT C) A) 2 S VERIFIED BY COMPOUNDS DETECTED Trichloroethene Chlorobenzene 1, 3-Bichlorobenzene 1, 4-Dichlorobenzene Sromoform 2-Chloroethylvinyl Ether 1, 2-Dichlorobenzene FRACTION 05A TEST CODE GC 601 NAME EPA Nethod 601/GC Date % lime Collected 02/25/86 cis-1, 3-Dichloropropens Dibromochloromethane 1, 1, 2-Trichloroethane 1, 1, 2, 2 -Tetrachloroethane Tetrachloroethylene COMPOUND 7 ANAL YST INSTRUMENT 9 Serv REPORI Results by Sample SCAN DATE INJECTED 02/27/86 3.95 Ŝ Ê 2 S Ê 2 읽 2 Q. 0.42 RESUL T Chloromethane Methylene Chloride Chloroform trans-1, 3-Dichloropropene Bromodichloromethane Chloroethane 1, 2.-Dichloropropane Bromome thane Vinyl Chloride 1:1chlorofluoromethane 1, 1-Dichloroethene 1, 1-Dichloroethane trans-1, 2-Dichloroethene 1, 2.-Dichloroethane 1, 1, 1-Trichloroethane Carbon letrachloride COMPOUND S SAMPLE 10 860200 DATA FILL CONC. FACTOR SCAN 054

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SAMPLE ID 860200

Serv REPURI Results by Sample Analytical Serv

LAB # 86-02-176 Continued From Above

FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC Date & lime Collected 02/25/86

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number or retention time on chromatogram.

All results reported in \_\_\_<u>ug/L</u> unless otherwise specified. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). \*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.

#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

# A POSSO NO P POSSO NO PO

LAB # 86-02-176

Serv REPORT Results by Sample

Analytical Serv

RECEIVED: 02/27/86

를 기계 빌 Ĭ RESULT VERIFIED BY COMPOUNDS DETECTED NAME EPA Nethod 602/GC Category 1, 4-Bichlorobenzene 1, 3-Dichlorobenzene 1, 2-Bichlorobenzene COMPOUND FRACTION 05C TEST CODE GC 602 Date & lime Collected 02/25/86 INSTRUMENT ANALYST SCAN DATE INJECTED 02/27/86 S S ĝ 0.92 RESULT Ethyl Benzene Chlorobenzene COMPOUND Benzene Toluene SAMPLE ID 850200 DATA FILE CONC. FACTOR SCAN 056

All results reported in \_\_\_uq/L unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79). SCAN = scan number or retention time on chromatogram. MOTES AND DEFINITIONS FOR THIS REPORT.

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Section 1551/201 Section

SECOND TOTAL DESCRIPTION

12.22

RECEIVED: 02/27/86 PAGE 19

Serv REPURI Results by Sample Analytical Serv

LAB # 86-02-176

SANPLE 110 860199

DATA FILE CONC. FACTOR

FRACTION O6A TEST CODE XYLENE NAME XULENES
Date % lime Collected 02/25/86

Category

ANAL YST INSTRUMENT

DATE INJECTED 02/28/86

VERIFIED BY COMPOUNDS DETECTED

Q N

m-xylene

2

p-xylene

RESULT

COMPOUND

SCAN

2

o-xylene

057

SCAN - scan number or retention time on chromatogram. ROTES AND DEFINITIONS FOR THIS REPORT.

All results reported in

ND = not detected

PAGE 20 RECEIVED: 02/27/86

Analytical Serv

Serv REPORT NonReported Work

LAB # 86-02-176

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

DUP 602 DUP 502 DUP 502 DUP 502 01D 02D 03D 04D 050 DUP 601 DUP 601 DUP 601 DUP 601 DUP 601 038 043 OSB Geb

01B 02B

# D. SKKKA DOCCOA REKKES ROCCOA BERDENE BESKES DOCUM REKKES DOCUM BERDEN RECKES FRAME

REPORT Radian Corporation  TO Larry French Austin, Texas  CLIENT PLANT 4  COMPANY General Dynamics COMPANY General Dynamics FACILITY OEHL Plant 4, Bldg 4  Austin, Texas SPINE DUE SPINE DUE SPINE DUE TAKEN 2/26/86 TYPE H23 TYPE H23	Radian Analytical Services BSO1 MoPac Blvd. P.O. Box 9948 Austin, Texas 78766 (512) 454-4797 COROBENZIDINE OUT OF GC SPETORITY EFFECT. THIS VERI	CIFICATIONS IN MATRIX FIED BY METHOD SPIKE
P.O. # 212-027-27-40		
e cover	* Indicates a value less than 5 times the detection limit.	the detection limit
	ves a value less viigii o viiies v	THE DECECTION TRUNC

specific matrix was not within acceptable limits indicating on limit. @ Indicates that spike recovery for this analysis on the Potential error for such low values ranges between 50 and 100%

Analytical Serv TEST CODES and NAMES used on this report

an interferent present

EX 625 Extraction only - 625 BN/A M625 A Method 625 Acid Compounds M625 B Method 625 Base/Neutrals MS 608 Pesticides & PCBs by GC/MS

860200 H20 860195 Duplicate Analysis 850196 Matrix Spike BNA

Reagent Blank 625 Method Spike BUA

SAMPLE IDENTIFICATION

059

860195 H20 860196 H20 860197 H20

RECEIVED: 02/27/86

REPORT Results by Sample Analytical Serv

LAB # 86-02-179

SAMPLE ID 850195 Duplicate Analysis

FRACTION OSB TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

DATA FILE SCD02179C05 CONC. FACTOR

DATE EXTRACTED 02/28/86
DATE INJECTED 03/13/86

INSTRUMENT ANAL YST

5100

VERIFIED BY LAK COMPOUNDS DETECTED J Z

> 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2-chlorophenol 2,4-dichlorophenol 2,4-dimethylphenol COMPOUND EPA 214 224 244 31A 344 NPDES SCAN 11A 3A 1 A 8 S A

NPDES SCAN RESULT 2

EPA

**7**A 5A

**59A** 

SBA

S

4-nitrophenol

RESULT

COMPOUND

2

2,4-dinitrophenol

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Q

pentachlorophenol

밁

phenol

60A

4 4

Q

2

2-methyl-4,6-dinitrophenol

64A

**9** 

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104

2

ΩN

2-nitrophenol

**65A** 

SURROGATE RECOVERIES

57A

**6 A** 

COMPOUND SCAN CODE

d5-phenol

RESULT

482

275

451

377

483

970

484

2-fluorophenol

2, 4, 6-tribromophenal

84

d3-phenol

SCAM = scan number or retention time on chromatogram. ug/l unless otherw AND DEFINITIONS FOR THIS REPORT Ali esults reported in NOTES

SACON SECONDO VINCOUNT CONTRACTOR SECONDO VERSION SECONDO VERSION SECONDO DE SECONDO DE

specified

FAGE 32 RECEIVED: 02/27/86

Analytical Serv REPORT Results by Sample

LAB # 86-02-179 Continued From Above

FRACTION OSB TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category Category 110 :: not detected at EPA detection limit method 625, (Federal Register, 11/26/84) SAMPLE ID 860195 Duplicate Analysis

 $\mathrm{SL} = \mathsf{detected}$  in reagent blank; background subtraction not performed. indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. CCNC. FACTOR:

limits should be multiplied by conc. factor

Minimum detection



Analytical Serv

REPORT

Results by Sample

LAB # 86-02-179

RECEIVED: 02/27/86

FRACTION 05B SAMPLE ID 860195 Duplicate Analysis

TEST CODE M625 B

AK O 밁 2 2 2 2 2 S 일 밁 2 윋 2 2 2 S 윋 RESULT NAME Method 625 Base/Neutrals COMPOUNDS DETECTED VERIFIED BY di-n-octyl phthalate diethyl phthalate ∢ N-nitrosodimethylamine N-nitrosodiphenylamine N-nitrosadi-n-propylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate di-butyl phthalate dimethyl phthalate benzo(a)pyrene acenaphthylene benzo(a)anthracene anthracene benzo(b)fluoranthene chrysene benzo(k)fluoranthene Category COMPOUND M Z 5100 Date & Time Collected not specified 618 63B 66B 67B **68B 69B** 70B 71B 72B 73B 74B 75B 76B 77B 783 INSTRUMENT EPA 62B ANALYST NPDES SCAN 26B 29B 24B 25B 18B 41B 43B 42B 138 158 **6B** 7B 9B 23 33 DATE EXTRACTED 02/28/86 DATE INJECTED 03/13/86 윋 밁 2 밁 2 2 윋 2 2 2 RESULT S S N S 2 문 윋 1, 2, 4-trichlorobenzene 1, 2-dichlorobenzene 2,6-dinitrotoluene 40B 4-chlorophenyl phenyl ether acenaphthene benzidine hexachlorobenzene bis(2-chloroethyl)ether 2-chloronaphthalene 3'dichlorobenzidine 2,4-dinitrotoluene 1, 2-diphenylhydrazine hexachloroethane 1, 3-dichlorobenzene 1, 4-dichlorobenzene fluoranthene COMPOUND 50002179005 203 25B 26B 273 288 358 36B 37B 39B EPA 12B 185 1 B **SB** 88 98 DATA FILE CONC. FACTOR NPDES SCAN 11B 062 168 46B 338 36B 208 21B 22B 238 27B 288 25B 313 17B 13 43

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Analytical Serv REPORT Results by Sample

LAB # 86-02-179 Continued From Above

TEST CODE M625 B NAME Method 625 Base/Neutrals lected not specified Category	benzo(ghi)perylene <u>ND</u>	fluorene ND	phenanthrene B <u>ND</u>	dibenzo(a,h)anthracene <u>ND</u>	indeno(1,2,3-cd)pyrene ND	pyrene ND		
M625 B	79B	808	818	82B	838	848		
FRACTION 05B TEST CODE M625 B N Date & Time Collected not specified	83	32B	443	19B	37B	45B		
JN 05B Time Co	Q	QN	QN	QN	2	QN	Q	QN
FRACTIC Date &	ether .	ether .	ethane _	adiene _	adiene	horone _	halene	enzene _
SAMPLE ID 850195 Duplicate Analysis	4-bromophenyl phenyl	428 bis(2-chloroisopropyl)e	bis(2-chloroethoxy)methane	hexachlorobutad	hexachlorocyclopentad	isopho	naphtha	nitroben
Duplica	4-bromo	is(2-ch	bis(2-c		hexach			
850195	415	42B b	438	528	538	54B	558	25B
MPLE 10	148	12B	108	34B	35B	388	39B	40B

SURROGATE RECOVERIES

RESULT	d5-nitrobenzene <u>82</u>	2-fluorobiphenyl86	d14-terphenyl 118	d10-biphenyl
CODE	BS1	BS2	883	BS4
SCAN CODE	489	750	1325	
	4	06	3	

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in <u>uq/l</u> unless otherwise specified. NO = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). high concentrations \*= benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram enzo(a)anthracene and chrysene co-elute



Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-179 Continued From Above

RECEIVED: 02/27/85

SAMPLE ID 860195 Duplicate Analysis

NAME Method 625 Base/Neutrals Category

Date & Time Collected not specified FRACTION 05B TEST CODE M625 B

3 = anthracene and phenanthrene co-elute in high concentrations. BL = detected in reagent blank; background subtraction not performed.

indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc. factor. CCNC. FACTOR:

Minimum detection

PAGE 36 RECEIVED: 02/27/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-179

SAMPLE ID 860195 Duplicate Analysis

FRACTION OSB TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

BY LAK	RESULT	QN	QN	QN	QN	QN	Ñ.	Q	QN	QN	QN	QN	Q	
VERIFIED BY COMPOUNDS DETECTED		alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
	COMPOUND													
MOL														
ANALYST	EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	111P	112P	113P	
4	S SCAN	0	n	0	0	0	n	0	n	0	n	0	0	
n in	NPDES	25	<u>в</u>	4 4		18P	19P	20P	21P	22P	23P	24P	25P	
<u>02/28/86</u> 03/13/86	RESULT	ND	QN	ND	QN	ND	Q	QN	N	ND	QN	Q	Q	QN
DATE EXTRACTED DATE INJECTED		aldrin	dieldrin	chlordane	4'-DDT	4'-DDE	4 ′ -DDD	,lfan	sulfan	ulfate	endrin	dehyde	chlor	poxide
		·	die	: h 1 o	4,4	4,4	4,4	rsopu	150pt	N	a i	a l	ep ta	Ø,
DATE E DATE	COMPOUND	·	die	chlo	4,4			alpha endosulfan	beta endosi	endosulfan su	ů	endrin ald	heptachlor	heptachlor ep
	COMPOUND	·	die	chlo	4,4				endo	N	Ü	a l	hepta	Ø,
5CD02179C05	EPA COMPOUND	д68	909	91P chlo	4,4				endo	N	d86	a l	100P hepta	Ø,
5CD02179C05	SCAN EPA				,4	,4	,4	alpha	beta endo	endosulfan s		endrin al		heptachlor e
	ЕРА				,4	8P 93P 4,	,4	alpha	beta endo	endosulfan s		endrin al		heptachlor e

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STORY OF THE COMMENT OF THE PROPERTY BEACHING

PRESENTAL MANAGEMENT



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Analytical Serv

REPORT Results by Sample

LAB # 86-02-179 Continued From Above

SAMPLE ID 850195 Duplicate Analysis

FRACTION OSB TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

Category

AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

NO = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).



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Analytical Serv

Serv REPORT Results by Sample

LAB # 86-02-179

SAMPLE ID 860196 Matrix Spike BNA

FRACTION 05A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

COMPOUNDS DETECTED VERIFIED BY Ξ 5100 INSTRUMENT DATE EXTRACTED 02/28/86 DATE INJECTED 03/12/86 DATA FILE SCMO2179C05 CONC. FACTOR

RESULT 2-methyl-4,6-dinitrophenol pentachlorophenol phenol 4-nitrophenol 2, 4-dinitrophenol COMPOUND **60A** EPA **58A 59A 644 65A** 876 946 377 NPDES SCAN 1055 861 **7**A 104 5A 4 4 RESULT 84 52 67 77 2-chlorophenol 2, 4-dichlorophenol 2, 4-dimethylphenol 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol COMPOUND 21A 22A 24A 314 344 5:4 674 372 559 NPDES SCAN 11A 737 4 8 **4**00 067

69

¥

106

64

105

69

SURROGATE RECOVERIES

64 535

62

2-nitrophenol

65 RESULT d5-phenol 2-fluorophenol 2, 4, 6-tribromophenol d3-phenol COMPOUND 483 AS2 484 SCAN CODE AS1 375 273 970

SCAN = scan number or retention time on chromatogram % unless otherw NOTES ALL DEFINITIONS FOR THIS REPORT. esults reported in

specified.

DONA KLEEKKA AKKKEGAT SESKELAN ZEBERBEA MANDESER BEFBEERT POOTTER DONALDEN MENKESA TERMAKKE



PAGE 39 RECEIVED: 02/27/86

Analytical Serv

REPORT Results by Sample

LAB # 86-02-179 Continued From Above

SAMPLE ID 850196 Matrix Spike BNA

Category

FRACTION 05A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category Minimum detection 110 = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).  $BL = {\sf detected}$  in reagent  ${\sf blank}$ ;  ${\sf background}$  subtraction not  ${\sf performed}$ . indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. linits should be multiplied by conc. factor. CENC. FACTOR:

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PAGE 40 RECEIVED: 02/27/86

Analytical Serv Results by Sample

LAB # 86-02-179

EIVED: 02/27/86

VERIFIED BY LAK DS DETECTED 46 9 272 100 44 116 RESULT 47 67 읾 8 82 105 102 94 띪 NAME Method 625 Base/Neutrals COMPOUNDS DETECTED ∢ N-nitrosodimethylamine N-nitrosodiphenylamine N-nitrosodi-n-propylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate di-butyl phthalate di-n-octyl phthalate diethyl phthalate dimethyl phthalate benzo(a)pyrene acenaphthylene benzo(a)anthraceme benzo(k)fluoranthene anthracene benzo(b)fluoranthene chrysene Category COMPOUND 5100 Date & Time Collected not specified TEST CODE M625 B EPA 63B **66B** 67B INSTRUMENT 61B 62B **68**B 69B 70B 71B 72B 73B 74B 75B 77B **78**B 76B NPDES SCAN 156 952 473 1505 1408 1178 818 825 1084 1597 1484 1698 164B 1652 1490 927 29B 13B 15B 26B 41B 73 183 24B 25B 93 28 38 43B 42B 5B **6**B DATE EXTRACTED 02/28/86 DATE INJECTED 03/12/86 RESULT FRACTION 05A 109 NA 112 2000 132 82 83 8 114 105 <u>۷</u> 109 117 8 œ acenaphthene benzidine 1, 2, 4-trichlorobenzene hexachlorobenzene hexachloroethane 2-chloronaphthalene 1, 3-dichlorobenzene 1, 4-dichlorobenzene 3, 3'dichlorobenzidine 2,4-dinitrotoluene 2,6-dinitrotoluene 40B 4-chlorophenyl phenyl ether bis(2-chloroethyl)ether 1, 2-dichlorobenzene 1,2-diphenylhydrazine fluoranthene COMPOUND SAMPLE ID 860196 Matrix Spike BNA DATA FILE SCM02179C05 123 183 20B 26B 276 368 37B EPA 13 53 83 93 25B 288 358 398 NPDES SCAN 440 533 854 1028 490 335 762 404 416 1483 835 **626** 1262 591 CONC 338 17B 46B 36B 113 16B 213 22B 23B 27B 288 3133 13 20B 25B 069 4

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LAB # 86-02-179 Continued From Above

Analytical Serv REPORT Results by Sample

PAGE 41 RECEIVED: 02/27/85

B NAME Method 625 Base/Neutrals fied Category	benzo(ghi)perylene 94	fluorene 107	phenanthrene B 105	dibenzo(a, h) anthracene 90	indeno(1,2,3-cd)pyrene 100	pyrene 100								
TEST CODE M625 B Nected not specified	798	808	818	82B	83B	843								
CODE of not	1979	931	1077	1921	1918	1295								
TES 11ecte	83	32B	44B	198	378	45B								
SAMPLE ID 860196 Matrix Spike BNA FRACTION 05A TEST CODE Date & Time Collected not	4-bromophenyl phenyl ether 144	bis(2-chloroisopropyl)ether 74	bis(2-chloroethoxy)methane 88	hexachlorobutadiene 124 i	hexachlorocyclopentadiene 1	isophorone 96	naphthalene 88	nitrobenzene 81	RIES	RESULT	d5-nitrobenzene <u>106</u>	2-fluorobiphenyl <u>118</u>	d14-terphenyl 126	d10-biphenyl
360196	418	428 b	43B	523	538	548	558	558	ECOVER	CODE	851	852	883	BS4
	14B 1C2Z	456	557	618	726	524	589	491	ATE R	SCAN	498	749	1325	
SAMPLE	148	128	108	348	358	383	39B	403	SURROGATE RECOVERIES	4	0	70		

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84) high concentrations. unless otherwise specified. \*= benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram. enzo(a)anthracene and chrysene co-elute All results reported in

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PAGE 42 RECEIVED: 02/27/86

Analytical Serv

REPORT Results by Sample

LAB # 86-02-179 Continued From Above

SAMPLE ID 860196 Matrix Spike BNA

Category

FRACTION 05A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category ≈ detected in reagent blank; background subtraction not performed.  $3\ =\$ anthracene and phenanthrene co-elute in high concentrations.

Minimum detection indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. FACTOR: CCINC

factor linits should be multiplied by conc. M KKKKK SIDIM DIVIN KKKKK BISIDI SEKEK DIVIN SISIK KKKKK KKKKK KKKKK

RECEIVED: 02/27/86

Results by Sample Analytical Serv

LAB # 86-02-179

SAMPLE ID Reagent Blank 625

FRACTION 05C TEST CODE M425 A NAME Method 625 Acid Compounds Date & Time Collected not specified

Category

DATA FILE SCB02144C04

02/28/86

O AK VERIFIED BY COMPOUNDS DETECTED

CONC. FACTOR

DATE INJECTED 03/11/86 DATE EXTRACTED

INSTRUMENT

5100

2, 4, 6-trichlorophenol COMPOUND EPA 21A NPDES SCAN

22A

BA A

11A

244

1 A

314

344

2 4-chloro-3-methylphenol

**7**A Q D

**58A** 

**59A** 

일

2,4-dinitrophenol

S

4-nitrophenol

RESULT

COMPOUND

NPDES SCAN

RESULT

2

9

2

2-methyl-4,6-dinitrophenol **60A** 64A

**4**A

2

2-chlorophenol

4

S

2,4-dichlorophenol

pentachlorophenol

**65A** 

10A

2

2,4-dimethylphenol

밁

2-nitrophenol

RESULT

SURROGATE RECOVERIES

SCAN CODE AS1 374

COMPOUND

2-fluorophenol

59

61

d5-phenol

86

483

696

484

AS5

269

2, 4, 6-tribromophenol

d3-phenol

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN pprox scan number or retention time on chronatogram AI esults reported in ug/l unless otherw  $\beta$  spec

specified

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Analytical Serv

Serv REPORT Results by Sample

LAB # 86-02-179 Continued From Above

SAMPLE ID Reagent Blank 625

NAME Method 625 Acid Compounds

Category

11/26/84).

FRACTION 05C TEST CODE M625 A NA Date & Time Collected not specified

 $\mathbb{N} = \mathbb{N}$  not detected at EPA detection limit method 625, (Federal Register, BL  $^{pprox}$  detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

Minimum detection indicates dilution of sample if greater than one (1). factor. linits should be multiplied by conc. CCNC. FACTOR:

> 073 4

KOONT SOMOONT KRIKKKAT DIDDIZIZT DIDIZIZZT SOMODINT MANDAKIT BIBBIKKAT KRICOKOHT BEBISSINT BIBIKADIKT DIDI

RECEIVED: 02/27/86

REPORT Results by Sample Analytical Serv

LAB # 86-02-179

NAME Method 625 Base/Neutrals Category Date & Time Collected not specified TEST CODE M625 B FRACTION 05C SAMPLE ID Reagent Blank 625

LAX 밁 윋 Ŝ g 2 밁 2 S RESULT VERIFIED BY COMPOUNDS DETECTED N-nitrosodimethylamine N-nitrosodi-n-propylamine bis(2-ethylhexyl)phthalate diethyl phthalate N-nitrosodiphenylamine butyl benzyl phthalate di-butyl phthalate di-n-octyl phthalate COMPOUND 5100 ANALYST INSTRUMENT EPA 61B 63B **66**B 67B 69B 62B **68**B 70B NPDES SCAN 24B 41B 43B 42B 13B 15B 26B 29B DATE EXTRACTED 02/08/86 DATE INJECTED 03/11/86 RESULT 잁 2 2 S 2 2 일 N benzidine acenaphthene 1, 2, 4-trichlorobenzene hexachlorobenzene hexachloroethane bis(2-chloroethyl)ether 2-chloronaphthalene 1, 2-dichlorobenzene COMPOUND DATA FILE <u>50802144004</u> IC FACTUR 1 EPA 123 188 13 58 83 98 NPDES SCAN 1114 COLIC 80 1**1** 1774

일

dimethyl phthalate

71B

25B

2

1, 3-dichlorobenzene

72B

**5B** 

밁

1.4 dichlorobenzene

73B

6B

윋

dichlorobenzidine

Ž

benzo(a)anthracene

물

benzo(a)pyrene

S

benzo(b)fluoranthene

74B

78

밁

4 dinitrotoluene

758

913

일

11: itrotoluene

76B

183

S

77B

<u>13</u>

2

**78B** 

33

읽

benzo(k)fluoranthene

밀

윋

chrysene

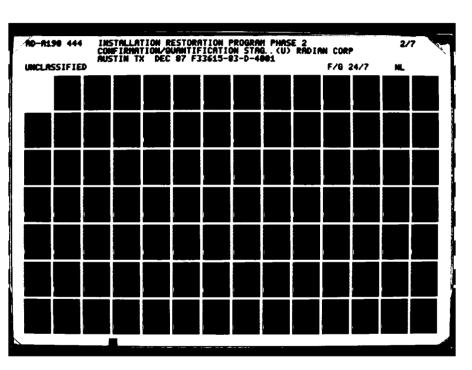
S

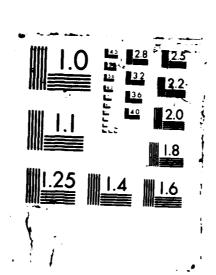
acenaphthylene

일

8

anthracene







LAB # 86-02-179 Continued From Above

Serv REPORT Results by Sample

Analytical Serv

PAGE 46 RECEIVED: 02/27/86

NAME Method 625 Base/Neutrals d Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a, h) anthracene ND	indeno(1,2,3-cd)pyrene ND	Dyrene ND								
M625 B specifie	798	808	818	828	838	848								
TEST CODE	818	328	44B	19B	37B	45B								
ank 625 FRACTION 05C TEST CODE Date & Time Collected not	4-bromophenyl phenyl ether ND	bis(2-chloroisopropyl)ether ND i	bis(2-chloroethoxy)methane ND i	hexachlorobutadiene ND	hexachlorocyclopentadiene ND	isophorone <u>ND</u>	naphthalene <u>ND</u>	nitrobenzene <u>ND</u>		RESULT	d5-nitrobenzene <u>80</u>	2-fluorabiphenyl 96	d14-terphenyl 120	d10-biphenyl
SAMPLE ID Reagent Blank 625	415 4-6	428 bis(	43B bis	52B	533 he	548	558	558	SURROGATE RECOVERIES	SCAN CODE	487 BS1	749 BS2	1324 BS3	B54
SAMPLE	148	12B	108	348	358	388	398	403	SURROGA		4 (	75		

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in <u>uq/l</u> unless otherwise specified. NO = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). high concentrations \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram enzo(a)anthracene and chrysene co-elute ٠٢

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REPORT Results by Sample Analytical Serv

Continued From Above LAB # 86-02-179

SAMPLE ID Reagent Blank 625

FRACTION OSC TEST CODE M625 B N Date & Time Collected not specified

NAME Method 625 Base/Neutrals Category

Minimum detection

3 = anthracene and phenanthrene co~elute in high concentrations.

= detected in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1). CENC. FACTOR:

linits should be multiplied by conc. factor.



REPORT Analytical Serv

Results by Sample

LAB # 86-02-179

RECEIVED: 02/27/86

SAMPLE ID Reagent Blank 625

FRACTION 05C TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

A O 밁 윋 2 Ž 밁 일 2 밁 밁 2 S RESULT VERIFIED BY COMPOUNDS DETECTED gamma BHC PCB-1242 alpha BHC PCB-1254 PCB-1232 PCB-1248 PCB-1260 PCB-1016 toxaphene beta BHC delta BHC PCB-1221 COMPOUND Σ 102P 105P 107P 110P 111P 113P **ANALYST** EPA 103P 104P 106P 108P 109P 112P NPDES SCAN 25 **18P** 19P 20P 21P 22P 23P **24P** 25P 95 46 90 DATE EXTRACTED <u>02/28/86</u>
DATE INJECTED <u>03/11/86</u> 밁 S RESULT 밁 2 욷 밁 Ω 밁 2 S S 2 2 aldrin 4, 4'-DDE 4, 4'-DDD endrin heptachlor epoxide dieldrin chlordane 4, 4'-DDT alpha endosulfan beta endosulfan endosulfan sulfate endrin aldehyde heptachlor COMPOUND DATA FILE 5CB02144C04 CONC. FACTOR 898 d06 91P 927 935 946 95P 96P 97P 9.8P 99P 1005 101P NPDES SCAN 11P 12P 14P 146 15P 16.5 17P 10P 40 16 90

SOUNT SESSENT TO SOURCE THE SESSENT THE SESSENT PROPERTY FOR SOURCE THE SESSENT FOR THE THE SESSENT FOR THE SE

PAGE 49 RECEIVED: 02/27/86

Analytical Serv REPORT Results by Sample

LAB # 86-02-179 Continued From Above

SAMPLE ID Reagent Blank 625

FRACTION OSC TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

AND DEFINITIONS FOR THIS REPORT. NOTES

All results reported in micrograms/liter unless otherwise specified SCAN = scan number on chromatogram.

NO = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv REPORT Results by Sample

LAB # 86-02-179

SAMPLE ID METhod Spike BNA

FRACTION OGA TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

Category

DATA FILE SCM03052C03

DATE EXTRACTED 03/10/86
DATE INJECTED 03/27/86

INSTRUMENT ANALYST

COMPOUND
NPDES SCAN EPA
RESULT
COMPOUND
NPDES SCAN EPA
\$535550

)		

5100

VERIFIED BY LAK COMPOUNDS DETECTED 11

73

RESULT

39

8

66

62

COMPOUND	4-nitrophenol	2,4-dinitrophenol	2-methyl-4,6-dinitrophenol	pentachlorophenol	phenol	
EPA	58A	59A	<b>60A</b>	64A	65A	
SCAN	828	5A 841	924	1030	10A 361	
NPDES SCAN	7 4	S. A.	4 4	<b>6</b>	10A	<b>~</b> ~-
RESULT	100	90	73	95	49	47
COLIPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol
EPA	21A	22A	244	31A	346	57A
SCAN	11A 717	656	374	551	527	516
NPDES SCAN	114	<b>4</b>	4	2A	A	6A
ğ			4	0	79	

SURROGATE RECOVERIES

COMPOUND	d5-phenol_57	2-fluorophenol_55	2, 4, 6-tribromophenol 94	d3-phenol
CODE	AS1	482	483	484
SCAN CODE	350	258	946	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram. unless otherw esults reported in

FRACTION 06A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category Continued From Above LAB # 86-02-179 REPORT Results by Sample Analytical Serv SAMPLE ID MEthod Spike BNA PAGE 51 RECEIVED: 02/27/85

Minimum detection Category  $100\,$   $^{12}$  not detected at EPA detection limit method 625, (Federal Register, 11/26/84).  $\mathfrak{SL} = \mathsf{detected}$  in reagent blank; background subtraction not performed. indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. linits should be multiplied by conc. factor. CONC. FACTOR:

ASSUMPTION	alas dell'est besse	radistración 1 - 1	s.ens.ens.ens	ALCHARATA	912-812-6	re-Crist-So	verior	i en X-en X	ers ers	er Serve	**************************************	nt ert e	2.012.01	.0.0.00	er-dr.	- Victor		<b>2020</b>	ALIE GRE	Orlanda Orlanda
	LAB # 86-02-179	M625 B NAME Method 625 Base/Neutrals specified Category	WJL VERIFIED BY LAK 5100 COMPOUNDS DETECTED 45	COMPOUND	N-nitrosodimethylamine 25	N-nitrosodiphenylamine 97	N-nitrosodi-n-propylamine 67	bis(2-ethylhexyl)phthalate 73	butyl benzyl phthalate 35	di-butyl phthalate 83	di-n-octyl phthalate 82	diethyl phthalate 77	dimethyl phthalate 48	benzo(a)anthracene A 90	benzo(a)pyrene 89	benzo(b)fluoranthene * 89	benzo(k)fluoranthene * 101	chrysene A 84	acenaphthylene 84	anthracene B 97
			ANALYST TRUMENT	EPA	61B	62B	8E9	66B	67B	<b>68</b> B	869	708	718	72B	73B	74B	75B	76B	77B	788
	REPORT Sample	Collected not	SNI	NPDES SCAN	418 153	43B 929	42B 455	13B 1477	158 1381	26B 1153	298 1568	248 904	25B <u>796</u>	5B 1454	<b>6B</b> 1661	78 1615	93 1619	18B 1460	28 803	3B 1058
<b>.</b>	Serv Results by	rion o6/	03/10/86 03/27/86	RESULT	81	ΩN	83	116	09	58	84	99	79	64	125	83	86	AN	76	76
IZ	Analytical (	FRACTION Date & T	DATE EXTRACTED DATE INJECTED	СОМРОИЛО	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	chloroethyl)ether	-chloronaphthalene	-dichlorobenzene	3-dichlorobenzene	-dichlorobenzene	3'dichlorobenzidine	2,4-dinitrotoluene	2,6-dinitrotoluene	2-diphenylhydrazine	fluoranthene	nyl phenyl ether
0 T T O T T O T T O T T O T T O T T O T T O T T O T T O T T O	98//	Method Spike BNA	<u>5cro3052co5</u>		æ	m				bis (2-	CI	1,2	1,	3 1,4	ė			1,	•	3 4-chlorophenyl
e c	02/27/86	E E		EPA	118	58	88	9.8	123	180	20B	25B	263	278	296	353	368	378	398	40B
	52 VED:		TA FILE FACTOR	SCAN	631		555	1003	462	359	741	4.22	392	338	1454	853	804		1234	910
V54/246	PAGE 52 RECEIVED:	SAMPLE ID	DATA CONC. FA	NPDES	1.8	4B	46B	338	368	11B	168	203	218	223	238	273	288	298	318	178
	urik e sa	2005-200 <u>0</u>								4	08						<b>.</b> .			

NAME Method 625 Base/Neutrals benzo(ghi)perylene fluorene dibenzo(a, h)anthracene indeno(1,2,3-cd)pyrene pyrene phenanthrene Category FRACTION OGA TEST CODE M625 B N Date & Time Collected not specified 79B **BOB** 818 82B 83B 848 **BB 1918** 1865 32B 90Z 37B 1863 1051 45B 1267 19B 44B 102 102 4-bromophenyl phenyl ether 107 61 428 bis(2-chloroisopropyl)ether bis(2-chloroethoxy)methane hexachlorobutadiene hexachlorocyclopentadiene isophorone naphthalene nitrobenzene SAMPLE ID MEthod Spike BNA 413 43B 528 535 548 55B 568 473 593 439 539 599 505 559 398 40B 14B 12B 108 358 388 348

90

Continued From Above

LAB # 86-02-179

REPORT

Analytical Serv

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PAGE 53

Results by Sample

8

89

97

47

### SURROGATE RECOVERIES

RESULT	d5-nitrobenzene 79	2-fluorobiphenyl73	d14-terphenyl44	d10-bipheny1
CODE	BS1	BSS	BS3	354
SCAN CODE	470	729	1297	
	4 (	082	2	

#### AND DEFINITIONS FOR THIS REPORT NOTES

110 = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). high concentrations unless otherwise specified \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram. enzo(a)anthracene and chrysene co-elute All results reported in

PAGE 54 RECEIVED: 02/27/86

Analytical Serv REPORT Results by Sample

LAB # 86-02-179 Continued From Above

SAMPLE ID MEthod Spike BNA

FRACTION O6A TEST CODE M625 B NAME Method 625 Base/Neutrals

Category

= detected in reagent.blank; background subtraction not performed Date & Time Collected not specified 3 =anthracene and phenanthrene co-elute in high concentrations.

Minimum detection

indicates dilution of sample if greater than one (1).

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

CCNC. FACTOR:

Analytical Serv REPORT NonReported Work

LAB # 86-02-179

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE PAGE 55 RECEIVED: 02/27/86

DUP\_NS DUP\_NS DUP\_NS DUP\_NS 01B 02B 03B 04B

## geren oorganisaan baanaan baanaan aanaa aanaa baanaa keessa kaasaasa kareeer boccooo kaasaasaa baasa K RADIAN

PAGE RECE

Serv REPORT 04/01/86 17:03:53 alytical Serv

LAB # 86-02-197

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CE IVED:	02/28/86	

Carl South	CERTIFIED BY	CONTACT CONDVER	-01, -03, -05.		he detection limit	ues permeen
PREPARED Radian Analytical Services BY 8501 MuPac Blvd. P. O. Box 9948	AUStin, Texas 78765	PHONE (512) 454-4797	Second column confirmation for EPA 602: -01,-03,-05	Footnotes and Comments	* Indicates a value less than 5 times the detection limit	50 and 100%
REFORT Radian TO B1 4 Austin	ATTEN Larry French	CLIENT PLANT4  COMPANY Plant 4	FACILITY Carswell AFB (Gen Dunamics)	MORK ID groundwater FAKEN WJ, FS	TYPE TYPE P. 1212-027-27-40	INVOICE under separate cover

specific matrix was not within acceptable limits indicating an interferent present. @ Indicates that spike recovery for this analysis on the

## SAMPLE IDENTIFICATION

Analytical Serv TEST CODES and NAMES used on this report		
4. 4. 5.		
5		
used		
NAMES		
and	thod 3020 sc sc spor	
CODES	Arsenic, low level Barium, ICPES Cadmium, ICPES Chromium, ICPES Digestion by Method 3020 Digestion by Method 5010 EPA Method 501/GC	
IEST PES	10PES 1CPES 1CPES 1CPES 1 by Me 1 by Me 10 by Me 10 by Me	1
cal Serv TES Silver, ICPES	Barium, ICPES Cadmium, ICPES Chromium, ICPES Chromium, ICPES Digestion by Metho Digestion by Metho EPA Method 501/GC EPA Method 502/GC Mercury, Cold Vapo Lead, low level	!
1631 511		
Analyt AG E	BA E CD E C	

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Analytical Serv

RECEIVED: 02/28/86

LAB # 86-02-197

(entered units) 0.062 0.73 0.088 03/12/86 03/18/86 <.0002 ₹.005 0.024€ 003 Sample 05 0.011 Sample 04 0.040 0.45 0.011 03/18/86 < 005 0.05303/12/86 <.0002 0.022 € 003 Sample 03 entered units 0.009\* 0.006\* 0.090 <.002 03/12/86 03/18/86 0.065 ₹. 0002 0.030 €. 003 RESULTS BY TEST Sample 02 entered units) 0.005\* 03/12/86 03/18/86 0.005\*<.002 0.055 ₹. 0002 0.010 0.071 ₹. 003@ entered units) entered units 03/12/86 0.003\* 03/18/86 <..0002 0.027 0.13 0.77 0.14 0.25@ < 003 0.012 \*0.050 Sample 06 Sample 01 ate complete default units default units TEST CODE TEST CODE 66010 02020 HG\_CA AG E og/m1 AS GA og/m1 086

0 2 2 0 0	CORPORATION	
PAGE 3 RECEIVED: 02/28/86	Analytical Serv REPORT RESULIS BY TEST	LAB # 86-02-197 CONTINUED FROM ABOVE
BA E	0.039	
	<002	
E 280	0.014*	
DG3020	03/12/86	
DG6010	03/18/86	
HG CA	<. 0002	
PB GA	0.004*	
SE GA	₹. 003	
· -		



RECEIVED: 02/28/86 PAGE 4

Serv REPORI Results by Sample Analytical Serv

LAB # 86-02-197

Z 뮏 Ž Ż 물 Ž Z Z RESULT Trichloroethene 0.16 VERIFIED BY COMPOUNDS DETECTED Bromoform 2-Chloroethylvinyl Ether Chlorobenzene NAME EPA Method 601/60 cis-1, 3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane Dibromoch loromethane 1, 1, 2-Trichloroethane Tetrachloroethylene Category COMPOUND RP 9 FRACTION OIA TEST CODE GC 601 Date & Time Collected 02/27/86 ANALYST INSTRUMENT SCAN DATE INJECTED 02/28/86 8.72 밁 2 2 2 S 2 ᄝ 물 RESULT Chloromethane Bromomethane Vanyl Chloride Chloroethane Methylene Chloride Trichlorofluoromethane 1,1-Dichloroethene 1, 1-Dichloroethane trans-1, 2-Dichloroethene COMPOUND C SAMPLE 10 860201 DATA FILE CONC FACTOR SCAN

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1, 3-Dichlorobenzene

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1, 2-Dichlorobenzene

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1,2-Dichloroethane

2

1, 1, 1-Trichloroethane

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Carbon Tetrachloride

2

Bromodichloromethane

2

Chloroform

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trans-1, 3-Dichluropropene

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1,2-Dichloropropane

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1, 4-Dichlorobenzene

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PAGE 5 RECEIVED: 02/28/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-197 Continued From Above

SAMPLE ID 860201

FRACTION OIA TEST CODE GC 601 Date & Time Collected 02/27/86

NAME EPA Method 601/GC Category

NOTES AND DEFINITIONS FOR THIS REPORT.

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). #1,1,2,2-tetrachlorvethane and tetrachloroethylene co-elute ug/L unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in\_\_\_

MERCHAN SOURCE MARKELLY STREET, STREET, STREET, STREET, STREET, MARKET BANKERY PARKET

RADIM.

FRACTION OIC TEST CODE GC 602 Date & Time Collected 02/27/86 ANALYST INSTRUMENT Analytical Serv REPORT Results by Sample DATE INJECTED 02/28/86 RECEIVED: 02/28/86 SAMPLE 1D 860201 DATA FILE CONC. FACTOR

NAME EPA Method 602/60 MC!

Category

LAB # 86-02-197

VERIFIED BY COMPOUNDS DETECTED

MCL

1, 4-Dichlorobenzene COMPOUND SCAN S RESULT COMPOUND Benzene SCAN

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RESULT

1, 3-Dichlorobenzene

13.3

Toluene

090

밁

Ethyl Benzene

1, 2-Dichlorobenzene

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Chlorobenzene

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AND DEFINITIONS FOR THIS REPORT NOTES

SCAN = scan number or retention time on chromatogram.

All results reported in <u>ug/L</u> unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federa) Register, 12/3/79).

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Analytical Serv

Serv REPORT RESULTS by Sample

LAB # 86-02-197

RECEIVED: 02/28/86

VERIFIED BY MCL NAME EPA Method 601/GC Category FRACTION 02A TEST CODE GC 601 Date & Time Collected 02/27/86 O SAMPLE ID 860202 DATA FILE

RESULT COMPOUNDS DETECTED COMPOUND ANALYST INSTRUMENT SCAN DATE INJECTED 02/28/86 RESULT CUMPOUND FACTOR SCAN CONC

1, 1, 2-Trichloroethane 2 밁 오 Chloromethane Bromomethane Vinyl Chloride

2 0.33 Methylene Chloride Chloroethane

皇 S Trichlorofluoromethane 1, 1-Dichloroethene

2 1, 1-Dichloroethane

091

0.74 Chloroform trans-1, 2-Dichloroethene

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1,2-Dichloroethane

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1, 1, 1-Trichloroethane Carbon Tetrachloride Bromodichlaromethane

S 1, 2-Dichloropropane

trans-1, 3-Dichloropropene

0.31 Trichloroethene Dibromochloromethane

9

물

밀 2-Chloroethylvinyl Ether cis-1, 3-Dichloropropene

N

S 2 0.08 Bromoform 1, 1, 2, 2-Tetrachloroethane **Tetrachloroethylene** 

Ÿ Chlorobenzene

Û 1, 2-Dichlorobenzene

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1, 3-Dichlorobenzene

1, 4-Dichlorobenzene

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PAGE 8 RECEIVED: 02/28/86

Results by Sample Analytical Serv

REPORT

LAB # 86-02-197 Continued From Above

SAMPLE ID 860202

FRACTION 02A TEST CODE 0C 601 Date & Time Collected 02/27/86

NAME EPA Method 601/60

AND DEFINITIONS FOR THIS REPORT. NOTES

ug/L unless otherwise specified SCAN = scan number or retention time on chromatogram. All results reported in\_

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

#1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute

### HENDER

FRACTION OZC TEST CODE CC 602 Date & Time Collected 02/27/86 DATE INJECTED 02/28/86 RECEIVED: 02/28/86 SAMPLE ID 860202 DATA FILE CONC. FACTOR

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-197

NAME EPA Method 602/60

Category

**ANALYST** INSTRUMENT

VERIFIED BY I COMPOUNDS DETECTED

길이

SCAN

SCAN

RESULT

COMPOUND

RESULT

COMPOUND

2

Benzene

1, 4-Dichlorobenzene

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밀

1, 3-Dichlorobenzene

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Toluene

Ethyl Benzene

9

1, 2-Dichlorobenzene

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Chlorobenzene

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NOTES AND DEFINITIONS FOR THIS REPORT

SCAN - scan number or retention time on chromatogram

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79). ug/L unless otherwise specified All results reported in



RECEIVED: 02/28/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-197

NAME EPA Method 601/60 Category FRACTION 03A TEST CODE GC 601 Date & Time Collected 02/27/86 SAMPLE 1D 860203

S 일 일 N 2 Z Z 2 Ž 2 RESULT 0.07 COMPOUNDS DETECTED VERIFIED BY Bromoform Trichloroethene 2-Chloroethylvinyl Ether Chlorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene 1, 1, 2-Trichloroethane 1, 1, 2, 2-Tetrachloroethane Tetrachloroethylene Dibromoch loremethane cis-1, 3-Dichloropropene COMPOUND ž INSTRUMENT ANAL YST SCAN DATE INJECTED 02/28/86 N S 2 S 2 S 2 욷 2 밁 RESULT 0.33 Methylene Chloride Chloromethane Vinyl Chloride Chloroform Bromomethane Chloroethane Trichlorofluoromethane 1, 1-Dichloroethene 1, 1-Dichloroethane trans-1, 2-Dichloroethene 1, 2-Dichloroethane CUMPOUND (0) DATA FILE SCAN

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1, 4-Dichlorobenzene

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1, 1, 1-frichloroethane

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Carbon Tetrachloride

2

Bromodichloromethane

1, 2-Dichloropropane

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trans-1, 3-Dichloropropene

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Results by Sample Analytical Serv

LAB # 86-02-197 Continued From Above

SAMPLE ID 860203

FRACTION 03A TEST CODE GC 601 Date & Time Collected 02/27/86

NAME EPA Method 601/GC Category

NOTES AND DEFINITIONS FOR THIS REPORT

\*Dibromochloromethane, 1,1,2—trichloroethane and c1s-1,3-dichloropropene co-elute ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79) #1,1,2,2—tetrachloroethane and tetrachloroethylene co-elute. ug/L unless otherwise specified SCAN = scan number or retention time on chromatogram. All results reported in\_\_\_\_uq/L unless otherwise spec

		D BY MCL CTED 1	RESUL.T	Ż	2	QN	
LAB # 86-02-197	FRACTION 03C TEST CODE GC 602 NAME EPA Method 602/GC Date & Time Collected 02/27/86	MCL VERIFIED BY d COMPOUNDS DETECTED	COMPOUND	1,4-Dichlorobenzene	1,3-Bichlorobenzene	1,2-Dichlorobenzene	
REPORT Sample	TEST CODE GC 602	ANALYST INSTRUMENT	SCAN				
cal Serv RePC Results by Sample	TION OBC	D 02/28/86	RESULT	QN	54.9	Q	QN
Analytıcal	FRAC	DATE INJECTED 02/28/86	COMPOUND	Benzene	Toluene	Ethyl Benzene	Chlorobenzene
PAGE 12 RECEIVED: 02/28/86	SAMPLE 10 860203	DATA FILE DOUG FACTOR	SCAN		4 09	96	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

uq/L unless otherwise specified All results reported in

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79)

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RECEIVED: 02/28/86 PAGE 13

Serv REPORT Analytical Serv

LAB # 86-02-197

Ž 밀 밀 밀 ÿ Ž 문 밁 물 RESULT VERIFIED BY COMPOUNDS DETECTED Bromoform Trichloroethene 2-Chloroethylvinyl Ether Chlorobenzene FRACTION 04A TEST CODE GC 601 NAME EPA Method 601/GC Date & Time Collected 02/27/86 Dibromochloromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane Tetrachloroethylene COMPOUND 3 P ANALYST INSTRUMENT SCAN DATE INJECTED 02/28/86 일 오 ᄝ S 밁 물 밁 밁 일 RESULT Chloromethane Bromamethane Vinyl Chloride Chloroethane Methylene Chloride Trichlorofluoromethane 1, 1-Dichloroethene 1,1-Dichloroethane trans-1, 2-Dichloroethene COMPOUND SAMPLE ID 860204 DATA FILE CONC. FACTOR SCAN

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1, 3-Dichlorobenzene

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Chlaraform

2

1, 2-Dichloroethane

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1, 1, 1-Trichloroethane

2

Carbon Tetrachloride

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Bromodichloromethane

밁

1,2-Dichloropropane

밁

trans-1, 3-Dichloropropene

2

1, 2-Dichlorobenzene

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1, 4-Dichlorobenzene

SSSSYT SSSSSSYTTEKKKKKT KREKKKYT DEKKERRYTKESSSSKT BOKKKKKTTBODORSKT BOKKSBOLT PERFORM TEKKRIKKTTFESS



PAGE 14 RECEIVED: 02/28/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-197 Continued From Above

SAMPLE ID 860204

NAME EPA Method 601/GC Category FRACTION 04A TEST CODE GC 601 Date & Time Collected 02/27/86

NOTES AND DEFINITIONS FOR THIS REPORT

ug/L unless otherwise specified SCAN = scan number or retention time on chromatogram. All results reported in\_

\*Dibromochloromethane, 1,1,2—trichloroethane and cis-1,3-dichloropropene co-elute ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

#1,1,2,2—tetrachloroethane and tetrachloroethylene co-elute.

ON CONTROL PROGRAM GESSESSI KEESSEST ESSESSI DEDONOTEDINGAT DEDUNG ESSESSI ESSESSE PREGRAT DED

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		ECTED 1	RESULT	Q	Q	Q	
LAB # 86-02-197	NAME EPA Method 602/GC Category	VERIFIED BY COMPOUNDS DETECTED	COMPOUND	1,4-Dichlorobenzene	1, 3-Bichlorobenzene	1, 2-Dichlorobenzene	
REPORT Sample	FRACTION 04C TEST CODE GC 602 Date & Time Collected 02/27/86	ANAL YST INSTRUMENT	SCAN			; ;	
tical Serv Results by Sample	FRACTION 04C Date & Time Col	DATE INJECTED <u>02/28/86</u>	RESULT	QN	1.46	Q	
Analytı		DATE IN	COMPOUND	Benzene	Toluene	Ethyl Benzene	
PAGE 15 RECEIVED: 02/28/86	SAMPLE ID 860204	CONC. FACTOR	SCAN		4 09	   <b>3</b> 9	
					2 0 0		

All results reported in <u>ug/L</u> unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79). SCAN = scan number or retention time on chromatogram. NOTES AND DEFINITIONS FOR THIS REPORT.

2

Chlorobenzene

PAGE 16 RECEIVED: 02/28/86

r serv Results by Sample Analytical Serv

LAB # 86-02-197

NAME EPA Method 601/60 FRACTION 05A TEST CODE GC 601 **SAMPLE ID 860205** 

í	; ;	t	Date (	Date & Time Collected 02/27/86	ed 02/27/86		Category	· ·
CONC	DATA FILE CONC. FACTOR		DATE INJECTED <u>02/28/86</u>	<u> 98782720</u>	ANAL YST INSTRUMENT	RP 9	VERIFIED BY COMPOUNDS DETECTED	이 교
	SCAN	COMP	COMPOUND	RESULT	SCAN	COP	COMPOUND	RESULT
			Chloromethane	QN			Trichloroethene	9
			Bromomethane	QN	Ì	Dibromoc	Dibromochloromethane *	MD
			Vingl Chloride	QN		1, 1, 2-Tri	1,1,2-Trichloroethane * _	ÜN.
			Chloroethane	QN	J	is-1, 3-Dic	cis-1,3-Dichloropropene * _	ÜN
		Meth	Methylene Chloride	QN		2-Chloroe	2-Chloroethylvinyl Ether	N
4		Trichlor	Trichlorofluoromethane	QN			Bromoform	ND
1 1		1, 1-	1,1-Dichloroethene	GN	1,1	, 2, 2-Tetra	1,1,2,2-Tetrachloroethane #	ŭ
00		1,1	1,1-Dichloroethane	QN		Tetrach	Tetrachloroethylene #	ON
)		trans-1,2-	trans-1,2-Dichloroethene	QN	-		Chlorobenzene	ÜN
			Chloraform	QN		1, 3-	1, 3-Dichlorobenzene	QN
		1, 2-	1,2-Dichloroethane	QN		1,2.	1,2-Dichlorobenzene	ND
		1,1,1-1	1,1,1-Trichloroethane	QN		1,4-	1, 4-Dichlorobenzene	N.
		Carbon	Carbon Tetrachloride	QN				
		Bromod	Bromodichloromethane	ND				

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1,2-Dichloropropane

S

trans-1,3-Dichloropropene



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Analytical Serv Results by Sample

REPURT

LAB # 86-02-197 Continued From Above

SAMPLE 10 860205

FRACTION 05A TEST CODE GC 601 NAME EPA Method 601/GC Date & Time Collected 02/27/86

NOTES AND DEFINITIONS FOR THIS REPORT

All results r ported in  $\frac{uq/L}{L}$  unless otherwise specified. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). SCAN = scan number or retention time on chromatogram

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute.

#1,1,2,2—tetrachloroethane and tetrachloroethylene co-elute.

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Analytical Serv

RECEIVED: 02/28/86

LAB # 86-02-197

MCL. ğ S 밁 RESULT COMPOUNDS DETECTED VERIFIED BY NAME EPA Method 602/60 Category 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene 1,2-Dichlorobenzene COMPOUND AC L FRACTION 05C TEST CODE GC 602 Date & Time Collected 02/27/86 ANALYST INSTRUMENT Serv Results by Sample SCAN DATE INJECTED 02/28/86 2 125 2 2 RESULT Ethyl Benzene Chlorobenzene COMPOUND Benzene Toluene SAMPLE 10 860205 DATA FILE CONC. FACTOR SCAN 102

SCAN = scan number or retention time on chromatogram. NUTES AND DEFINITIONS FOR THIS REPORT.

<u>ug/L</u> unless otherwise specified All results reported in

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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REPORT Analytical Serv

LAB # 86-02-197

Results by Sample PAGE 19 RECEIVED: 02/28/86 SAMPLE ID 860206

COMPOUNDS DETECTED VERIFIED BY NAME EPA Method 601/GC Category 집 FRACTION OGA TEST CODE GC 601 Date & Time Collected 02/27/86 ANALYST INSTRUMENT DATE INJECTED 02/28/86 9 DATA FILE CONC. FACTOR

**Dibromochloromethane** SCAN 2 RESULT Chloromethane COMPOUND SCAN

2 Ş Bromomethane Vinyl Chloride

2 밁 Chloroethane

Ŝ Methylene Chloride Trichlorofluoromethane

1, 1-Dichloroethene 1, 1-Dichloroethane

2

S

S S Chloroform rans-1, 2-Dichloroethene

2 1, 2-Dichloroethane

2 1, 1, 1-Trichloroethane Ω Carbon Tetrachloride

일 1, 2-Dichloropropane

밁

Bromodichloromethane

RESULT Trichloroethene COMPOUND

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1, 1, 2-Trichloroethane

ND

Ż

2

cis-1, 3-Dichloropropene

2 밀 2-Chloroethylvinyl Ether Bromoform S

1, 1, 2, 2-Tetrachloroethane

N N Ę Chlorobenzene Tetrachloroethylene

2 1, 3-Dichlorobenzene Ž 1, 2-Dichlorobenzene

Ÿ 1, 4-Dichlorobenzene

trans-1, 3-Dichloropropene

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THE PARTIES OF THE PARTY OF THE

PAGE 20 RECEIVED: 02/28/86

SAMPLE ID 360206

Serv Results by Sample Analytical Serv

LAB # 86-02-197 Continued From Above

NAME EPA Method 601/6C Category

FRACTION OGA TEST CODE GC 601 Date & Time Collected 02/27/86

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in ug/L unless otherwise specified. SCAN = scan number or retention time on chromatogram.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. #1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

Analytical Serv

LAB # 86-02-197

짇 Ŷ 밀 2 RESULT VERIFIED BY COMPOUNDS DETECTED NAME EPA Method 602/60 1, 4-Dichlorobenzene 1,2-Dichlorobenzene 1, 3-Dichlorobenzene Category COMPOUND MCL FRACTION OGC TEST CODE GC 602
Date & Time Collected 02/27/86 ANAL YST INSTRUMENT SCAN Serv REPORT DATE INJECTED 02/28/86 S 밁 2 S RESULT Ethyl Benzene Chlorabenzene COMPOUND Toluene Benzene RECEIVED: 02/28/86 SAMPLE 1D 860206 DATA FILE CONC. FACTOR SCAN 105

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79). ug/L unless otherwise specified. SCAN = scan number or retention time on chromatogram. AND DEFINITIONS FOR THIS REPORT. All results reported in NOTES

\* SKKKKSI" DODDON \* KKOKKSI" KSKKSSI" DARDZKT BASKKKI" PZERZOT DEKKRIT KKKKKS "NDODONT PRES

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Analytical Serv

LAB # 86-02-197

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

Serv REPORT NonReported Work

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### SADIAN SE

specific matrix was not within acceptable limits indicating limit @ Indicates that spike recovery for this analysis on the CONTACT FRENCH LAB # 86-02-198 Indicates a value less than 5 times the detection Analytical Serv TEST CODES and NAMES used on this report Potential error for such low values ranges between Services Footnotes and Comments Austin, Texas 78766 EX 625 Extraction only - 625 BN/A M625 A Method 625 Acid Compounds M625 B Method 625 Base/Neutrals MS 608 Pesticides & PCBs by 9C/MS PREPARED <u>Radian Analytical</u> BY <u>8501 MoPac Blvd.</u> (512) 454-4797Box 9948 an interferent present Analytical Serv REPORT 03/31/86 14:29:53 Д О 50 and 100%. PHONE ATTEN SAMPLES under separate cover DEHL Plant 4, Bldg REPORT Radian Corporation Plant 4 Ft. Worth, General Dynamics Fed Ex 343914384 SAMPLE IDENTIFICATION 212-027-27-40 Austin, Texas Austin, Texas Larry French RECEIVED: 02/28/86 2/27/86 PLANT 4 Reagent Blank 860201 H20 860202 H20 860203 H20 860204 H20 860205 H20 860206 HZD COMPANY FACILITY TYPE 10 INVOICE WORK ID TAKEN TRANS CLIENI ATTEN 의路업업업 입 107

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PAGE 2 RECEIVED: 02/28/86	Analy	Analytical Serv RESULTS BY TEST	REPORT Test	LAB # 86-02-198	-198
TEST CODE default units	Sample 01 (entered units)	Sample 02 (entered units)	Sample 03 (entered units)	Sample 04	Sample 05 (entered units)
EX_625 date complete	03/03/86	03/03/86	03/03/86	03/03/86	03/03/86
TEST CODE	Sample 06 (entered units)	Sample 07 (entered units)			
EX_625	98/60/60	03/03/86			

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PAGE 3 RECEIVED: 02/28/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-198

SAMPLE 1D 860201 H20

FRACTION O1A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 02/27/86

Category

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86 DATA FILE SCU02198C01 CONC. FACTOR 1

5100 ANALYST INSTRUMENT

VERIFIED BY LAK COMPOUNDS DETECTED

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RESULT

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1	œ		-			_  	
	COMPOUND	4-nitrophenol	2,4-dinitrophenol	2-methyl-4,6-dinitrophenol	pentachlorophenol	phenol	
1	EPA	<b>58A</b>	39A	<b>60A</b>	64A	65A	
	NPDES SCAN	7A	ę,	44	9.8	10A	
i i	KESOLI	N	Q N	Q	QN	QV	CZ
		2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol
ć	₹ L IJ	21A	22A	24A	31A	34A	57A
3	INT DES SCAIN						
	נייי	114	<b>8</b>	14	2A	e A	<b>6</b> A
2	Z			4	1	09	

SURROGATE RECOVERIES

d3-phenol	AS4	
2, 4, 6-tribromophenol <u>105</u>	AS3 2, 4, 6-tr	970
2-fluorophenol <u>68</u>	AS2 2-	262
d5-phenol62	AS1	370
D RESULT	ODE COMPOUND	SCAN CODE

ug/l unless otherw ,e specified SCAN = scan number or retention time on chromatogram NOTES AND DEFINITIONS FOR THIS REPORT. Al esults reported in

7777 NS2X82 R66634 133335 1335555

PAGE 4 RECEIVED: 02/28/86

Analytical Serv REPORT Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE 1D 860201 H2D

FRACTION O1A TEST CODE M625 A
Date & Time Collected 02/27/86

NAME Method 625 Acid Compounds Category

NO = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).  $\mathrm{BL} = \mathsf{detected}$  in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1).

linits should be multiplied by conc. factor.

Minimum detection

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LAB # 86-02-198

Analytical Serv

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RESULT

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NAME Method 625 Base/Neutrals VERIFIED BY COMPOUNDS DETECTED N-nitrosodimethylamine N-nitrosodiphenylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate di-n-octyl phthalate diethyl phthalate dimethyl phthalate acenaphthylene N-nitrosodi-n-propylamine di-butyl phthalate benzo(a)pyrene benzo(a)anthracene benzo(b)fluoranthene anthracene benzo(k)fluoranthene chrysene Category COMPOUND MJL 5100 TEST CODE M625 B Date & Time Collected 02/27/86 66B 61B 62B **829** 67B 718 72B 73B 74B **75B** 76B 77B 788 ANALYST INSTRUMENT EPA **68B** 69B 70B NPDES SCAN Serv REPORT Results by Sample 25B 183 41B 43B 42B 13B 15B 26B 29B 24B 5B **6B** 78 28 38 DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86 RESULT FRACTION 01A 뮏 윋 2 2 2 2 2 皇 2 윋 Ž 2 2 2 2 밀 1,2-diphenylhydrazine fluoranthene acenaphthene benzidine 2-chloronaphthalene 1, 4-dichlorobenzene 3, 3'dichlorobenzidine 2, 4-dinitrotoluene 40B 4-chlorophenyl phenyl ether 1, 2, 4-trichlorobenzene hexachlorobenzene hexachloroethane bis(2-chloroethyl)ether 1, 2-dichlorobenzene 1, 3-dichlorobenzene 2,6-dinitrotoluene COMPOUND DATA FILE <u>5CU02198C01</u> CONC. FACTOR 1 SAMPLE ID 860201 H20 RECEIVED: 02/28/86 278 358 36B 37B EPA 188 20B 25B 26B 288 39B 88 12B 18 **SB** 9B NPDES SCAN 18 46B 33B 36B 11B 16B 20B 21B 22B 23B 27B 28B 29B 31B 17B 4B

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LAB # 86-02-198 Continued From Above

Serv REPORT Results by Sample

Analytical Serv

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NAME Method 625 Base/Neutrals Category	benzo(ghi)perylene <u>ND</u>	fluorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1,2,3-cd)pyrene ND	pyrene ND					
TEST CODE M625 B ected 02/27/86	79B	808	818	828	838	848					
TEST (	88	32B	44B	19B	37B	45B					
H20 FRACTION 01A TEST CODE M625 Date & Time Collected 02/27/86	4-bromophenyl phenyl ether ND	bis(2-chloroisopropyl)ether ND ;	bis(2-chloroethoxy)methane ND :	hexachlorobutadiene ND 1	hexachlorocyclopentadiene ND 1	isophorone <u>ND</u>	naphthalene ND	nitrobenzene <u>ND</u>	RIES	RESULT	d5-nitrobenzene38
0 860201	418	42B	43B	52B	53B	24B	558	26B	E RECOVE	SCAN CODE	4 <u>85</u> BS1
SAMPLE 1D 860201 H20	148	12B	108	34B	35B	388	39B	40B	SURROGATE RECOVERIES	738	4

NOTES AND DEFINITIONS FOR THIS REPORT.

2-fluorobiphenyl

**BS2** 

749

112

**BS3** 

1325

**BS4** 

d14-terphenyl

d10-biphenyl

110 = not dete ted at EPA detection limit method 625, (Federal Register, 10/26/84). , high concentrations. uq/l unless otherwise specified.  $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram. enzo(a)anthracene and chrysene co-elute All results reported in\_\_\_

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PAGE 7 RECEIVED: 02/28/86

Analytical Serv

REPORT Results by Sample

LAB # 86-02-198

Continued From Above

SAMPLE 1D 860201 H20

B = anthracene and phenanthrene co-elute in high concentrations.

FRACTION O1A TEST CODE M625 B Date & Time Collected 02/27/86

NAME Method 625 Base/Neutrals

Category BL = detected in reagent blank; background subtraction not performed.

indicates dilution of sample if greater than one (1). factor.

Minimum detection

J = estimated value; less than method detection limit. limits should be multiplied by conc. CONC. FACTOR:

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Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-198

SAMPLE 1D 860201 H20

FRACTION 01A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected 02/27/86

VERIFIED BY LAK COMPOUNDS DETECTED \_\_0 ANALYBT DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86 DATA FILE SCU02198CO1

ID RESULT	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND	
COMPOUND													
SCAN EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	111P	112P	113P	
NPDES	22 PS	e e	4 4	en En	18P	19P	20P	21P	22P	23P	24P	25P	
RESULT	Q	Q	QN	QN	Q	Q	QN	Q.	N	QN	QN	Q	QN
COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin ældehyde	heptachlor	heptachlor epoxide
EPA	898	90P	918	92P	93P	94P	95P	496	97P	98P	d66	100P	101P
S SCAN	16	a.	<b>6P</b>	7P	89 8-	<b>9</b> 6	a.	<b>Ģ</b> .	a,	a.	<u>a</u>	o_	ō.
NPDES	***	10P	4	4		14	11P	12P	14P	14P	15P	16P	17P

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Analytical Serv REPORT Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE 1D 860201 H20

860201 H2U

FRACTION O1A TEST CODE MS 608 Date & Time Collected 02/27/86

NAME Pesticides & PCBs by GC/MS Category

NOTES AND DEFINITIONS FOR THIS REPORT.

NO = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified. SCAN = scan rumber on chromatogram.

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Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-198

SAMPLE 1D 860202 H20

FRACTION <u>02A</u> TEST CODE <u>M625 A</u> Date & Time Collected 02/27/86

NAME Method 625 Acid Compounds

Category

DATA FILE SCU02198C02 CONC. FACTOR 1

DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86

INSTRUMENT

VERIFIED BY LAK IDS DETECTED 0 COMPOUNDS DETECTED

5100

2-methyl-4, 6-dinitrophenol **60A** EPA **58A 59A 64A** NPDES SCAN **7** A D 44 **9** RESULT 2 2 윋 2 2, 4, 6-trichlorophenol 2-chlorophenol 4-chloro-3-methylphenol 2, 4-dimethylphenol 2, 4-dichlorophenol COMPOUND 21A 22A 24A 31A EPA 34A NPDES SCAN 11A 24 34 88 ₹ 116 4

2

2

pentachlorophenol

윋

**65A** 

10A

2

밁

2-nitrophenol

밁

2, 4-dinitrophenol

月

4-nitrophenol

RESULT

COMPOUND

SURROGATE RECOVERIES

**57A** 

**49** 

130 RESULT 2, 4, 6—tribromophenol d5-phenol 2-fluorophenol d3-phenol COMPOUND **AS2** ASB AS4 AS1 SCAN CODE 376 272 970

85

ug/l unless otherw e specified. SCAN = scan number or retention time on chromatogram AND DEFINITIONS FOR THIS REPORT. esults reported in NOTES

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Analytical Serv Results by Sample

LAB # 86-02-198

Continued From Above

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SAMPLE 1D 860202 H20

FRACTION OZA TEST CODE M625 A Date & Time Collected 02/27/86

NAME Method 625 Acid Compounds Category

NO=not detected at EPA detection limit method 6.25, (Federal Register, 11/26/84).  $\mathsf{BL}\ =\ \mathsf{detected}$  in reagent blank; background subtraction not performed

indicates dilution of sample if greater than one (1). Um estimated value: less than method detection limit. limits should be multiplied by conc. factor. CONC. FACTOR:

Minimum detection

2			취이	<b>-</b> -	2		Q	Q	9	2	밁	Q Z			QN	2	일	9	Q	2	
	LAB # 86-02-198	NAME Method 625 Base/Neutrals Category	WUL VERIFIED BY LAK 5100 COMPOUNDS DETECTED 0	COMPOUND	N-nitrosodimethylamine N	N-nitrosodiphenylamine N	N-nitrosodi-n-propylamine N	bis(2-ethylhexyl)phthalate N	butyl benzyl phthalate N	di-butyl phthalateN	di-n-octyl phthalateN	diethyl phthalate N	dimethyl phthalate N	benzo(a)anthracene A N	benzo(a)pyrene	benzo(b)fluoranthene * N	benzo(k)fluoranthene *N	chrysene A N	acenaphthylene N	anthracene B N	
10000000000000000000000000000000000000		M625 B 27/86	ANALYSTTRUMENT	EPA	618	62B	63B	66B b	67B	889	69B	70B	718	72B	73B	74B	75B	76B	77B	788	
	REPORT Sample	FRACTION OZA TEST CODE M625 Date & Time Collected 02/27/86	ANALYST INSTRUMENT	NPDES SCAN	418	43B	42B	138	15B	268	298	24B	25B	58	<b>6</b> B	78	98	183	28	38	
	rv sults by	ON OZA Time Col	03/03/86 03/13/86	RESULT N	Q	2	Q	2	QN	Q	QN	Q	Q	Q	QN	Q	Q.	Q	Q	Q	Ž
	Analytical Ser Re	FRACTIC Date &	DATE EXTRACTED O	COMPOUND	acenaphthene _	benzidine	1, 2, 4—trichlorobenzene	hexachlorobenzene _	hexachloroethane _	bis(2-chloroethyl)ether _	2-chloronaphthalene .	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	3'dichlorobenzidine	2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	henyl phenyl ether	
	98/8	02 H20	5CU0219BC02		18	5B	BB 1, 2, 4	93	<b>82</b>						'n				38	40B 4-chlorophenyl	
	GE 12 CEIVED: 02/2	SAMPLE ID 860202 H20	DATA FILE S CONC. FACTOR _	NPDES SCAN EPA	18 1	48 5	46B 8	338 9	36B 12B	11B 18B	16B 20B	208 258	218 268	22B 276	23B 28B	27B 35B	288 368	29B 37B	318 398	17B 40	
	4 E	w. W.	O O O	a Z	. C. K.	r. r. i		' N. N.	والمام المامي	4	11		የሚያለው	<b>ያየሴ</b> ገያየሌን	egyegy	e de la composition de la composition La composition de la	<sub>-</sub> ገሊገሊ	nkivi.	W.W.	<b>√1,</b> 4€.7	
UCAKAKAKA	<u> </u>	מברבות בייני	ממניבינע	0000		A A	MAY)	2/10/02		AT AT		CALL		15000	all all		0000	KUNU'N	<u>UNUN</u>		Z.)

PAGE 13 RECEIVED: 02/28/86	02/28/		Analytical Serv Resu	Serv Results by Sample	REPORT Sample		LAB # 86-02-198 Continued From Above	
SAMPLE 1D 860202 H20	860205	2 H20	FRACTION Date & T	OZA ime Col	FRACTION OZA TEST CODE M625 B Date & Time Collected 02/27/86	M625 B	NAME Method 625 Base/Neutrals Category	
148	418	4-bromophenyl	phenyl ether	QN	88	79B	benzo(ghi)perylene	S
12B	42B	bis(2-chloroisopropyl)ether	propyl)ether	2	32B	808	fluorene N	Q
108	43B	bis(2-chloroethoxy)met	hoxy)methane	2	44B	818	phenanthrene B N	Q
34B	52B	hexachl	hexachlorobutadiene	8	19B	82B	dibenzo(a,h)anthracene N	S
35B	<b>23B</b>	hexachlorocyclopentad	lopentadiene	2	37B	83B	indeno(1,2,3-cd)pyrene N	Q
388	24B		isophorone	Q	45B	848	N energe	Q
398	55B		naphthalene	Q				
40B	26B		nitrobenzene	2				
SURROGATE RECOVERIES	RECOVE	RIES						
SCA!	SCAN CODE	RESULT	רד					
1	9 BS1	45	d5-nitrobenzene	36				
19	9 BS2	2-4	2-fluorobiphenyl	36				

### NOTES AND DEFINITIONS FOR THIS REPORT.

**BS3** 

1325

BS4

d14-terphenyl

d10-biphenyl

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). enzo(a)anthracene and chrysene co-elute 🚫 high concentrations uq/l unless otherwise specified. = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram. All results r ported in\_\_\_

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Analytical Serv

Serv REPORT Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE 1D 860202 H20

FRACTION OZA TEST CODE M625 B Date & Time Collected 02/27/86

NAME Method 625 Base/Neutrals Category

Minimum detection

B = anthracene and phenanthrene co~elute in high concentrations.

= detected in reagent blank; background subtraction not performed.

indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc. factor. CONC. FACTOR:

120

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Analytical Serv REPORT Results by Sample

LAB # 86-02-198

NAME Pesticides & PCBs by GC/MS Category FRACTION 02A TEST CODE MS 608 Date & Time Collected 02/27/86 SAMPLE ID 860202 H2D

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BY LAK TED Q	RESULT	QN	QN	N	Z	N	Q	Z	N	N	N	N	Z		
VERIFIED BY COMPOUNDS DETECTED	COMPOUND	alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene		
MUL															
ANALYST	SCAN EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	111P	112P	113P		
a. a.	NPDES	25	ĕ	46	S.	186	199	20P	21P	22P	23P	24P	25P		
03/03/86 03/13/86	RESULT	QN	QN	QN	Q	QN	QN	Q	Q	2	Q	Q	Q	Q Z	
ATE EXTRACTED DATE INJECTED		aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	endosulfan	endosulfan	an sulfate	endrin	n aldehyde	heptachlor	or epoxide	
DATE EXT DATE IN	COMPOUND							alpha	beta	endosulfan		endrin a		heptachlor	
5CU02198C02	EPA	89P	90P	91P	92P	93P	94P	93P	96P	97P	486	дее	100P	101P	
DATA FILE CONC. FACTOR	SCAN	_	·	•	-	-	-	_	-	-	-	-	***	<b>—</b>	
DA1	NPDES	1 P	10P	<b>6</b> P	7P	8	<u>a</u>	11P	12P	14P	1 4P	15P	16P	17P	
					4	12	41								

KKKKA NININGA SESSESIA NININGA KKKKESA PITUBAK KUKKEKA BARKEKA KKKKKKKA PITUTAK TEKKKIKA TAKA

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Analytical Serv

REPORT Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE 1D 860202 H20

FRACTION 02A TEST CODE MS 608 Date & Time Collected 02/27/86

NAME Pesticides & PCBs by GC/MS

Category

AND DEFINITIONS FOR THIS REPORT. NOTES

All results reported in micrograms/liter unless otherwise specified SCAN = scan number on chromatogram.

NO = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

CONTROL STATISTICAL PROFESSOR STATISTICAL

DESCRIPTION DESCRIPTION

222222

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REPORT Results by Sample Analytical Serv

LAB # 86-02-198

SAMPLE ID 860203 H20

FRACTION 03A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 02/27/86

Category

DATA FILE SCU02198C03 CONC.

DATE INJECTED 03/13/86 DATE EXTRACTED 03/03/86

INSTRUMENT ANALYST

5100

VERIFIED BY LAK COMPOUNDS DETECTED

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4-nitrophenol

RESULT

COMPOUND

EPA

NPDES SCAN

**58A** 

Y V

S

2, 4-dinitrophenol

밁

2-methyl-4,6-dinitrophenol

**60A** 

4

64A

4

**65A** 

10A

밁

2-nitrophenol

**39A** 

4

밀

pentachlorophenol

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phenol

RESULT 윋 윋 2 뮏 2 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2,4-dimethylphenol 2-chlorophenol 2,4-dichlorophenol COMPOUND EPA 21A 22A 24A 31A 344 NPDES SCAN 114 88 9 2A 17 123

SURROGATE RECOVERIES

57A

**6**A

RESULT d5-phenol 2-fluorophenol COMPOUND ASS SCAN CODE AS1 375 272

69

125

d3-phenol

2, 4, 6-tribromophenol AS3 AS4 970

SCAN = scan number or retention time on chromatogram. ug/l unless otherw NOTES AND DEFINITIONS FOR THIS REPORT. Al jesults reported in

specified.

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Analytical Serv

REPORT Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE 1D 860203 H20

FRACTION 03A TEST CODE M625 A
Date & Time Collected 02/27/86

NAME Method 625 Acid Compounds Category

NO = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). indicates dilution of sample if greater than one (1).  $\mathsf{BL} = \mathsf{detected}$  in reagent  $\mathsf{blank}$ ;  $\mathsf{background}$  subtraction not  $\mathsf{performed}$ .

Minimum detection

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

CCNC. FACTOR:

124

granacana K	7474047967		Korastera	9,6 <sup>1</sup> 3,62,1	27-01	ON OFFI	נייניייו	100 a 21	ינייעי	ملامعال	<u> </u>	المرتمة	צל יונל יו	* \$7.3	o <u>ro</u> ñe	(Pa ha	rana	اهتما	والمواجدة	<u>orana</u>	ry <del>s</del> n
\$355	LAB # 86-02-198	B NAME Method 625 Base/Neutrals Category	VERIFIED BY LAK 5100 COMPOUNDS DETECTED 1	COMPOUND	N-nitrosodimethylamineND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate ND	butyl benzyl phthalate ND	di-butyl phthalate 1 BL	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A <u>ND</u>	benzo(a)pyrene ND	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A ND	acenaphthylene ND	anthracene R ND	
\$3.55 \$1.00		O2/27/86	ANALYST INSTRUMENT	EPA	61B	62B	<b>829</b>	66B	<b>67B</b>	<b>889</b>	69B	708	71B	72B	738	74B	75B	768	77B	788	
CONTRACTOR	REPORT Sample	03A TEST CODE ime Collected 02/2	ANINSTR	NPDES SCAN	418	43B	42B	138	158	26B 1179	298	248	258	3B	<b>6</b> B	78	98	188	2B	38	
0.50.50.50	Serv Results by		<u>03/03/86</u> 03/13/86	RESULT	QN	Q	QN	Q	QN	Q	9	Q	Q	Q	Q	Q	QN	Q	Q	QN	2
	Analytical S R	FRACTION Date & I	DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1,3-dichlorobenzene	1, 4-dichlorobenzene	3,3'dichlorobenzidine	2,4-dinitrotoluene	2,6-dinitrotoluene	. 2-diphenylhydrazine	fluoranthene	4-chlorophenyl phenyl ether	
	02/28/86	860203 H20	5 <u>CU02198C03</u>	EPA	18	58	88 1,	9.8	12B	18B bis	20B	25B	26B	27B	28B	358	36B	37 <b>B</b> 1	39B	40B 4-chlor	
	PAGE 19 RECEIVED: 03	SAMPLE ID <u>86</u>	DATA FILE CONC. FACTOR	NPDES SCAN	18	48	46B	338	368	118	168	20B	218	22B	238	27B	268	29B	318	178	Ç
	XXXXXXX				XX				4 565	1	25 .:		<u> </u>								<u>~</u>

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PAGE 20 RECEIVE	원 등	PAGE 20 RECEIVED: 02/28/86		Analytical Serv Resu	Serv Results by Sample	REPORT Sample	<u>—</u>	LAB # 86-02-198 Continued From Above
SAMPL	드	SAMPLE 1D 860203 H20	3 H20	FRACTION 03A Date & Time	O3A ime Col	ACTION 03A TEST CODE M625 te & Time Collected 02/27/86	TEST CODE M625 B ected 02/27/86	NAME Method 625 Base/Neutrals Category
148		41B	4-bromophenyl phenyl	henyl ether	9	88	798	benzo(ghi)perylene ND
128		42B	bis(2-chloroisopropyl)ether	ropyl)ether	Q	32B	808	fluorene ND
108		43B	bis(2-chloroethoxy)meth	oxy)methane	2	44B	818	phenanthrene B ND
348		52B	hexachlorobutad	robutadiene	2	19B	828	dibenzo(a,h)anthracene ND
358		533	hexachlorocyclopentad	opentadiene	S.	37B	838	indeno(1, 2, 3-cd)pyrene ND
388		24B		isophorone	Q	45B	848	dN analyd
398		55B		naphthalene	2			
40B		268	c	nitrobenzene	2			
SURRO	GATE	SURROGATE RECOVERIES	RIES					
	SCAN	CODE	RESULT	F				
4	489	<u>3</u> BS1	d 51	d5-nitrobenzene	44			
12	750	2 BS2	2-41	2-fluorobiphenyl	49			
6	1326	<u>5</u> BS3	ס	d14-terphenyl	21			
		884		d10-bipheny1				

NOTES AND DEFINITIONS FOR THIS REPORT.

high concentrations.  $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram. enzo(a)anthracene and chrysene co-elute

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Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-198 Continued From Above

SAMPLE ID 860203 H20

FRACTION 03A TEST CODE M625 B Date & Time Collected 02/27/86

NAME Method 625 Base/Neutrals Category

≕ detected in reagent blank; background subtraction not performed.

B = anthracene and phenanthrene co-elute in high concentrations.

limits should be multiplied by conc. factor. CONC. FACTOR:

J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1).

Minimum detection

RECEIVED: 02/28/86

SAMPLE 1D 860203 H20

REPORT Analytical Serv

Results by Sample

LAB # 86-02-198

NAME Pesticides & PCBs by GC/MS

Category

TEST CODE MS 608 FRACTION 03A TEST CODE MS 60 Date & Time Collected 02/27/86

O AK RESULT VERIFIED BY COMPOUNDS DETECTED delta BHC PCB-1242 PCB-1254 alpha BHC beta BHC gamma BHC PCB-1221 COMPOUND M EPA 107P 104P 105P 106P 108P ANALYST 102P 103P NPDES SCAN 19P 20P ᄗ 96 44 S D 189 DATE EXTRACTED 03/03/86 DATE INJECTED 03/13/86 RESULT 2 밀 밁 S S 2 2 aldrin dieldrin 4, 4'-DDE 4, 4'-DDD alpha endosulfan chlordane 4, 4'-DDT COMPOUND DATA FILE SCU02198CO3 CONC. FACTOR **89P** 90P 91P 92P 93P 94P 95P NPDES SCAN 4 109 11P 9 7P 96

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PCB-1232

109P

21P

문

beta endosulfan

96P

12P

97P

14P

98P

14P

99P

156

100P

16P

101P

17P

110P

**22P** 

2

endosulfan sulfate

2

PCB-1248

2

PCB-1260

111P

23P

밁

endrin

112P

24P

S

endrin aldehyde

113P

25P

2

heptachlor

밁

heptachlor epoxide

윋

PCB-1016

2

toxaphene

KSSST WIZZZZI WYSYSZI WYSYSZI KSSSSZI WZSZSZI WSSSSZI WYSZSZI WYSZSZI WYSZSZI

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Analytical Serv REPORT Results by Sample

FRACTION 03A TEST CODE MS 608 Date & Time Collected 02/27/86

LAB # 86-02-198 Continued From Above

NAME Pesticides & PCBs by GC/MS

Category

SAMPLE 1D 860203 H20

AND DEFINITIONS FOR THIS REPORT.

NOTES

SCAN = scan number on chromatogram.

NO = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified

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PAGE 24 RECEIVED: 02/28/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-198

NAME Method 625 Acid Compounds

Category

SAMPLE 1D 860204 H20

FRACTION 04A TEST CODE M625 A
Date & Time Collected 02/27/86

VERIFIED BY LAK COMPOUNDS DETECTED \_\_\_O 5100 ANALYST DATE EXTRACTED 02/02/86
DATE INJECTED 03/13/86 DATA FILE <u>SCU02198C04</u>
CONC. FACTOR

N	N	N	N	N			
4-nitrophenol	2,4-dinitrophenol	2-methyl-4,6-dinitrophenol	pentachlorophenol _	phenol			
<b>58A</b>	39A	<b>60A</b>	64A	65A			
7A	e E	<b>4</b>	♥6	10A			
Q	N	Q	N	Q Z	Ž		RESULT
2, 4, 6-trichlorophenol	-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND
21A	22A 4	24A	31A	34A	57A	ECOVERIES	CODE
∢	র	∢.	<b>₹</b>	Æ	র্	OGATE R	SCAN CODE
11	Œ				40	SURR	
	2,4,6-trichlorophenol ND i 7A 58A 4-nitrophenol	21A 2,4,6-trichlorophenol ND   7A 58A 4-nitrophenol 22A 4-chloro-3-methylphenol ND   5A 59A 2,4-dinitrophenol	21A 2.4.6-trichlorophenol ND i 7A 58A 4-nitrophenol 22A 4-chloro-3-methylphenol ND i 5A 59A 2-methyl-4.6-dinitrophenol 24A 60A 2-methyl-4.6-dinitrophenol	11A         21A         2, 4, 6-trichlorophenol         ND         7A         58A         4-nitrophenol           8A         22A         4-chloro-3-methylphenol         ND         5A         59A         2, 4-dinitrophenol           1A         24A         2-chlorophenol         ND         4A         60A         2-methyl-4, 6-dinitrophenol           2A         31A         2, 4-dichlorophenol         ND         9A         64A	11A         21A         2. 4. 6-trichlorophenol         ND         7A         58A         4-nitrophenol           8A         22A         4-chloro-3-methylphenol         ND         5A         5A         2. 4-dinitrophenol           1A         24A         2-chlorophenol         ND         4A         60A         2-methyl-4, 6-dinitrophenol           2A         31A         2. 4-dichlorophenol         ND         9A         64A         pentachlorophenol           3A         34A         2. 4-dimethylphenol         ND         10A         65A         phenol	11A         21A         2.4.6-trichlorophenol         ND         1         7A         58A         4-nitrophenol           8A         22A         4-chloro-3-methylphenol         ND         5A         5A         2.4-dinitrophenol           1A         24A         4A         60A         2-methyl-4.6-dinitrophenol           2A         31A         2.4-dichlorophenol         ND         10A         65A         65A         pentachlorophenol           3A         34A         2.4-dimethylphenol         ND         10A         65A         phenol         phenol           6A         57A         2-nitrophenol         ND         10A         65A         phenol         phenol	11A         21A         2.4.6—trichlorophenol         ND         A         5A         5BA         4—nitrophenol           BA         22A         4—chloro-3—methylphenol         ND         AA         5A         35A         2.4—dinitrophenol           1A         24A         2.4—dichlorophenol         ND         AA         6A         2-methyl-4.6—dinitrophenol           2A         31A         2.4—dichlorophenol         ND         AA         6A         AA         bentachlorophenol           3A         34A         2.4—dimethylphenol         ND         AA         AA

d3-phenol NOTES AND DEFINITIONS FOR THIS REPORT. **AS4** 

107

2, 4, 6-tribromophenol

AS3

972

ASS

273

AS1

376

d5-phenol

2-fluorophenol

# specified SCAN = scan number or retention time on chromatogram ug/l unless otherw Al esults reported in Keen seesees energen assass, menses proposa proposa proposa proposa assassa assassa brasses

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Analytical Serv

REPORT Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE 1D 860204 H20

FRACTION 04A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 02/27/86 Category

Category

 ${\sf NO}$  = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).  $\mathsf{SL} = \mathsf{detected}$  in reagent blank; background subtraction not performed. J ≈ estimated value; less than method detection limit.

Minimum detection indicates dilution of sample if greater than one (1). limits should be multiplied by conc. factor. CONC. FACTOR.

RECEIVED: 02/28/86

REPORT Results by Sample Analytical Serv

LAB # 86-02-198

2 윋 밁 밀 윋 윋 밁 뮏 2 일 욷 윋 일 윋 일 VERIFIED BY LAK RESULT NAME Method 625 Base/Neutrals COMPOUNDS DETECTED N-nitrosodimethylamine N-nitrosodi-n-propylamine N-nitrosodiphenylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate di-butyl phthalate di-n-octyl phthalate diethyl phthalate dimethyl phthalate benzo(a)pyrene acenaphthylene benzo(a)anthracene benzo(b)fluoranthene chrysene benzo(k)fluoranthene Category COMPOUND 5100 TEST CODE M625 B Date & Time Collected 02/27/86 EPA 61B 62B 63B 66B 67B 69B 70B 71B 72B **73B** 74B 75B **76B 77B** INSTRUMENT **68B** ANALYST NPDES SCAN 41B 43B 42B 13B 15B 26B 29B 24B 25B 18B 2B **5B 6B** 78 DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86 FRACTION 04A 밁 RESULT 일 2 2 2 윋 2 S 윋 윋 뮏 윋 윋 윋 윋 acenaphthene benzidine 1, 2, 4-trichlorobenzene hexachlorobenzene 1, 2-diphenylhydrazine bis(2-chloroethyl)ether 2-chloronaphthalene 1, 2-dichlorobenzene 1, 3-dichlorobenzene 1, 4-dichlorobenzene 3, 3'dichlorobenzidine 2,4-dinitrotoluene fluoranthene hexachloroethane 2,6-dinitrotoluene COMPOUND DATA FILE <u>SCU02198CO4</u> CONC. FACTOR SAMPLE 1D 860204 H20 EPA 88 93 18B 20B 25B 26B 27B 288 35B 36B 37B 39B 18 S 12B NPDES SCAN 置 13 2 16B 18 46B 33B 36B 20B 218 22B 23B 27B **28B** 29B 318 **4B** 

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anthracene

**78B** 

38

윋

40B 4-chlorophenyl phenyl ether

17B

LAB # 86-02-198 Continued From Above

Serv REPORT Results by Sample

Analytical Serv

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SAM	PLE 1D	SAMPLE 1D 860204 H20	. H20	FRACTION 04A	∰	TEST COD	TEST CODE M625 B	NAME Method 625 Base/Neutrals
				Date & lime Collected <u>02/2//86</u>		ected OZ	/5//86	Category
#	14B	41B	4-bromophenyl phenyl	ether	ON O	88	798	benzo(ghi)perylene ND
-	12B	42B	bis(2-chloroisopropyl)	)ether	 임	32B	808	fluorene ND
***	10B	43B	bis(2-chloroethoxy)me	ethane	 2	44B	818	phenanthrene B ND
n	348	52B	hexachlorobuta	adiene	<u> </u>	19B	82B	dibenzo(a,h)anthracene ND
n	35B	538	hexachlorocyclopenta	adiene	 8	37B	838	indeno(1, 2, 3-cd)pyrene ND
n	388	34B	isopt	isophorone	Q	45B	848	pyrene ND
n	39B	558	naphth	naphthalene	 2			
4	40B	26B	nitrobe	enzene	 2			
SUR	SURROGATE	RECOVERIES	RIES					
	SCA	SCAN CODE	RESULT					
4	490	<u>0</u> BS1	d5-nitrobenzene		29			
13	751	1 BS2	2-fluorobi	iphenyl	32			
3	1326	ES9 9	d14-ter	d14-terphenyl	20			

NOTES AND DEFINITIONS FOR THIS REPORT

354

d10-biphenyl

NO = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). /high concentrations. All results reported in <u>ug/l</u> unless otherwise specified.  $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram. enzo(a)anthracene and chrysene co-elute

FRACTION 04A TEST CODE M625 B Date & Time Collected 02/27/86 Serv REPORT Results by Sample Analytical Serv SAMPLE ID 860204 H20 PAGE 28 RECEIVED: 02/28/86

LAB # 86-02-198 Continued From Above

NAME Method 625 Base/Neutrals

Minimum detection Category BL = detected in reagent blank; background subtraction not performed indicates dilution of sample if greater than one (1). B = anthracene and phenanthrene co-elute in high concentrations J = estimated value; less than method detection limit. CONC. FACTOR:

linits should be multiplied by conc.

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Analytical Serv REPORT Results by Sample

LAB # 86-02-198

SAMPLE 1D 860204 H20

FRACTION 04A TEST CODE MS 608 Date & Time Collected 02/27/86

NAME Pesticides & PCBs by GC/MS Category

VERIFIED BY LAK COMPOUNDS DETECTED 0	COMPOUND	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND
ANALYST _	SCAN EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	111P	112P	113P
	NPDES	9	e e	4	ac G	18P	19P	20P	21P	22P	23P	24P	25P
<u>03/03/86</u> 03/13/86	RESULT	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN
DATE EXTRACTED DATE INJECTED	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor
DATA FILE <u>SCUO2198CO4</u> IC. FACTOR	SCAN EPA	899	90P	916	92P	486	946	956	96P	976	486	<b>d</b> 66	100P
DATA DATA CONC. F	NPDES SC		109	<b>4</b> 9	4 4	& 1	ֆ 35	110	12P	14P	146	1. K. K.	16P

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heptachlor epoxide

101P

17P

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PAGE 30 RECEIVED: 02/28/86

SAMPLE 1D 860204 H20

Analytical Serv REPORT Results by Sample

LAB # 86-02-198 Continued From Above

FRACTION 04A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected 02/27/86

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

DATE EXTRAC	DATE INJEC
5CU0219BC05	***
DATA FILE	CONC. FACTOR

PAGE 31		.es.66.e.e.e.		receses	verer er		er e			ALTOCOP	
### Analytical Serv REPORT    1/28/86		LAB # 86-02-198	AME Method 625 Acid Compounds Category		VERIFIED BY COMPOUNDS DETECTED				-	-	
### Analytical Serv REPORT Results by Sample Results by Sample Results by Sample Date & Time Collected OZ DATE EXTRACTED OS/13/86 INSTRUCED OS/13/8			₹		1 1	∢	∢	∢		∢	∢
### Analytical Serv (28/86		ORT	CODE M6 02/27/		ANALYS STRUMEN		38 8	90	9	64	89
Analytical Serv Resulve Analytical Serv Resulve Hall Analytical Service Hall Analytical Ser		REP Sample	TEST llected				7A	SA A	4	9 8	104
Analytical Signature of the state of the sta	NSSS	rv sults by			<u> </u>		QN	Q	QN	Q	Q
2005 H20 10205 H20 21A 21A 22A 24A 31A 34A	333 SS	Analytical Se	FRACTION Date &				5-trichlorophenol	ro-3-methylphenol	2-chlorophenol	.4-dichlorophenol	.4-dimethylphenol
33333			<b>65</b>		1	ប <mark>ី</mark>	2, 4,	4-ch 101		a	à
PAGE 31 RECEIVED: SAMPLE ID CONC. FACTI 11A 11A 13A 3A 3A		02/28/86	860205 +				21A	22A	24A	31A	34A
<b>₹₽₹</b> 5 ½ ~ 4 137	-	GE 31 CEIVED:	MPLE ID		DATA FI		114	8 <b>A</b>	41	2A	A A
(marchines) and and the fine fine fine fine fine fine fine fin	&	A Ä	S.		Ö	ŭ Ž	<b>₹</b> ***		4	13	7

### SURROGATE RECOVERIES

₽9

2

2-nitrophenol

RESULT	d5-phenol <u>63</u>	pheno176	phenol 112	d3-phenol
COMPOUND	45-	2-fluorophenol	2, 4, 6—tribromophenol_	-EP
SCAN CODE	375 AS1	271 AS2	971 AS3	AS4

NOTES AND DEFINITIONS FOR THIS REPORT.

specified SCAN = scan number or retention time on chromatogram ug/l unless otherw Al seults reported in

# BASH BASASA BASASA

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Analytical Serv

REPORT Results by Sample

LAB # 86-02-198

Continued From Above

SAMPLE 1D 860205 H20

FRACTION 05A TEST CODE M625 A
Date & Time Collected 02/27/86

NAME Method 625 Acid Compounds Category

Minimum detection

ND  $^{\pm}$  not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

 $\mathrm{SL} = \mathrm{detected}$  in reagent blank; background subtraction not performed J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1). limits should be multiplied by conc. factor CCNC. FACTOR:

LAB # 86-02-198	B NAME Method 625 Base/Neutrals Category	VERIFIED BY LAK 5100 COMPOUNDS DETECTED 0	COMPOUND	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate ND	butyl benzyl phthalate ND	di-butyl phthalate ND	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A ND	benzo(a)pyrene ND	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A ND	acenaphthyler.	anthracene B ND	
REPORT Sample	Collected 02/27/86	ANALYST INSTRUMENT	NPDES SCAN EPA	41B 61B	43B 62B	42B 63B	13B 66B	15B 67B	26B 68B	29B 69B	24B 70B	25B 71B	58 728	8E 2 89	7B 74B	9B 75B	188 768	28 778	38 788	
Serv Results by Sa	FRACTION <u>05A</u> Date & Time Colle	03/03/8 <b>6</b> 03/13/86	RESULT NPI	QN QN	Q	QN	QN	QN	Q	Q	QV	QN	Q	Q	QN	Q	QN	Q	QN	)
Analytical S R	FRACT	DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1,3-dichlorobenzene	1,4-dichlorobenzene	3,3'dichlorobenzidine	2, 4-dinitrotoluene	2,6-dinitrotoluene	1, 2-diphenylhydrazine	fluoranthene	4-chlorophenyl phenyl ether	
D: 02/28/86	ID 860205 H20	DATA FILE <u>5CU02198CO5</u> C. FACTOR 1	SCAN EPA	18	58	88 1,	86	128	18B bis	20B	25B	268	278	288	35B	3 <b>9</b> B	378	398	40B 4-chlo	<u>)</u>
PAGE 33 RECEIVED:	SAMPLE ID	DATA CONC. F	NPDES S	118	48	46B	338	368	8 1 4	168	39	218	228	238	27B	289	, 29B	318	178	

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PAGE 34 RECEIVED:	02/28/86	Analytical	Serv Results by Sample	REPORT Sample	_	LAB # 86-02-198 Continued From Above
SAMPLE 1D 860205 H20	860205		FRACTION 05A TEST CODE M625 Date & Time Collected 02/27/86	TEST CO	TEST CODE M625 B ected 02/27/86	NAME Method 625 Base/Neutrals Category
148	418	4-bromophenyl phenyl ether	QN	88	79B	benzo(ghi)perylene ND
12B	42B b	bis(2-chloroisopropyl)ether	QN	32B	808	fluorene ND
108	43B	bis(2-chloroethoxy)methane	QN	44B	818	phenanthrene B ND
34B	52B	hexachlorobutadiene	QN	198	828	dibenzo(a,h)anthracene ND
35B	<b>23B</b>	hexachlorocyclopentadiene	Q	37B	838	indeno(1, 2, 3-cd)pyrene ND
388	34B	isophorone	Q	45B	848	Dh. auaind
398	55B	naphthalene	Q			
408	26B	nitrobenzene	QN			
SURROGATE	RECOVERIES	IES				
•		+ - - - -				

RESULT	d5-nitrobenzene 62	2-fluorobiphenyl 66	d14-terphenyl 38	d10-bipheny1
SCAN CODE	489 851	749 852	1326 BS3	BS4
	4	1	40	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram. All results reported in -uq/l unless otherwise specified. NO = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). high concentrations  $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. enzo(a)anthracene and chrysene co-elute

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Analytical Serv

serv RePORT Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE ID 860205 H20

FRACTION 05A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected 02/27/86 Category

Category

Minimum detection

 $\mathrm{BL} = \mathrm{detected}$  in reagent blank; background subtraction not performed.  $\mathrm{B}$  = anthracene and phenanthrene co-elute in high concentrations. J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1).

limits should be multiplied by conc. factor.

141

SAMPLE ID 860205 H20 RECEIVED: 02/28/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-198

NAME Pesticides & PCBs by GC/MS FRACTION 05A TEST CODE MS 608 Date & Time Collected 02/27/86

Category

AKO 윋 皇 밁 일 밁 일 2 ᄝ 읭 윋 RESULT g 밁 COMPOUNDS DETECTED VERIFIED BY alpha BHC gamma BHC beta BHC delta BHC PCB-1242 PCB-1254 PCB-1232 PCB-1248 PCB-1260 PCB-1016 toxaphene PCB-1221 COMPOUND EPA 103P 107P **ANALYST** 102P 104P 105P 106P 108P 109P 110P 111P 112P 113P NPDES SCAN 20P 21P 23P 4 199 22P **24P** 25P 26 18P g DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86 RESULT 윋 욷 밁 2 2 2 2 2 욷 윋 aldrin dieldrin 4, 4'-DDE 4, 4'-DDD alpha endosulfan chlordane 4, 4'-DDT beta endosulfan endrin endosulfan sulfate endrin aldehyde heptachlor COMPOUND DATA FILE SCU02198COS CONC. FACTOR EPA **89P** 90P 91P 92P 93P 94P 95P 96P **97**6 989 99P 100P NPDES SCAN 4 10P 12P 15P 6Р 11P 14P 14P 16P

TERRORA PERSONAL EMPRENAL PRINTER MINISTER L

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heptachlor epoxide

101P

17P

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Analytical Serv REPORT Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE ID 860205 H2U

NAME Pesticides & PCBs by GC/MS FRACTION 05A TEST CODE MS 608 Date & Time Collected 02/27/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-198

SAMPLE 1D 860206 H20

FRACTION 06A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 02/27/86

Category

VERIFIED BY LAK 5100 COMPOUNDS DETECTED 0	COMPOUND	4-nitrophenol ND	2,4-dinitrophenol ND	2-methyl-4, 6-dinitrophenol ND	pentachlorophenol ND	phenol ND			
ANALYST	EPA	<b>58A</b>	59A	<b>60A</b>	64A	<b>63A</b>			
INS	NPDES SCAN	<b>4</b>	an A	4 4	<b>8</b>	10A			
<u>03/03/86</u> 03/13/86	RESULT	Q	Q	Q	Q	N	Q		i .
DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		
DATA FILE <u>SCUOZO6CO6</u> IC. FACTOR 1				<b>₹</b>			57A	OVERIES	
FILE CTOR _	AN EPA	21A	22A	24A	31A	34A	57	E RECC	
DATA FILE CONC. FACTOR	NPDES SCAN	114	8	<b>₹ 4</b>	∜ 14	∯ 4	49	SURROGATE RECOVERIES	C

52 62 102 RESULT d5-phenol 2, 4, 6-tribromophenol d3-phenol 2-fluorophenol COMPOUND **AS2** ASB 484 SCAN CODE AS1 376 274 970

e specified SCAN = scan number or retention time on chromatogram. ug/l unless otheru NOTES AND DEFINITIONS FOR THIS REPORT. Al esults reported in BOLL SERVEY VINDER AND WILLIAM WILLIAM SERVEY SERVEY WESSER BENEVAL BENEVEZ BOLLEGE TO THE

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Results by Sample Analytical Serv

REPORT

Continued From Above LAB # 86-02-198

SAMPLE 1D 860206 H20

FRACTION 06A TEST CODE M625 A Date & Time Collected 02/27/86

NAME Method 625 Acid Compounds Category

Minimum detection

ND  $^{\prime\prime}$  not detected at EPA detection limit method 625, (Federal Register, 11/26/84).  $\mathsf{BL} = \mathsf{detected}$  in reagent blank; background subtraction not performed.

indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc. factor. CONC. FACTOR:

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Analytical Serv REPORT Results by Sample

LAB # 86-02-198

NAME Method 625 Base/Neutrals Category TEST CODE M625 B Date & Time Collected 02/27/86 FRACTION 06A SAMPLE ID 860206 H20

LAK A 2 윋 문 윋 윋 2 윋 뮏 RESULT 밀 밀 윋 2 윋 2 月 2 COMPOUNDS DETECTED VERIFIED BY N-nitrosodimethylamine N-nitrosodiphenylamine N-nitrosodi-n-propylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate di-butyl phthalate di-n-octyl phthalate diethyl phthalate dimethyl phthalate benzo(a)pyrene acenaphthylene benzo(a)anthracene anthracene benzo(b)fluoranthene benzo(k)fluoranthene chrysene COMPOUND 5100 INSTRUMENT EPA 61B 62B **63B 66B** 67B **68B 69B** 70B 71B 72B **73B** 74B ANALYST 75B 76B **77B 78B** NPDES SCAN 41B 43B 15B 26B 29B 42B 13B 24B 25B **SB 6**B 18B 78 28 38 98 DATE EXTRACTED 03/03/86 DATE INJECTED 03/13/86 RESULT 욷 2 2 S 일 2 2 呈 윋 뮏 윋 오 윋 2 밁 acenaphthene 1, 2, 4-trichlorobenzene benzidine hexachlorobenzene 2-chloronaphthalene hexachloroethane bis(2-chloroethyl)ether 1, 2-dichlorobenzene 1,3-dichlorobenzene 3, 3'dichlorobenzidine 40B 4-chlorophenyl phenyl ether 1, 4-dichlorobenzene 2, 4-dinitrotoluene 2,6-dinitrotoluene 1,2-diphenylhydrazine fluoranthene COMPOUND DATA FILE SCU02198CO6 CONC. FACTOR EPA 12B 18B 20B 25B 26B 27B 28B 378 18 **SB 8**B 98 35B 36B 39B NPDES SCAN 18 46B 338 36B 11B 16B 20B 218 22B 23B 27B 288 29B 31B 17B 146

ROOM REPORTED THE PROOFE THE PROO

PAGE 41 RECEIVED:	02/28/86	Analyt	ical Serv Results by Sample	REPORT Sample	<b></b>	LAB # 86-02-198 Continued From Above
SAMPLE ID 860206 H20	860206		FRACTION OGA TEST CODE M625 Date & Time Collected 02/27/86	TEST CO	TEST CODE M625 B ected 02/27/86	NAME Method 625 Base/Neutrals Category
148	418	4-bromophenyl phenyl	ether ND	88	798	benzo(ghi)perylene ND
128	428	bis(2-chloroisopropyl)	ether ND	32B	808	#1uorene ND
108	438	bis(2-chloroethoxy)me	thane ND	44B	818	phenanthrene B ND
348	528	hexachlorobutadiene	diene ND	198	828	dibenzo(a, h)anthracene ND
35B	538	hexachlorocyclopenta	diene ND	378	838	indeno(1,2,3-cd)pyrene ND
388	34B	isoph	orone ND	45B	848	ON mene
398	55B	naphth	alene ND			
40B	56B	nitrobe	nzene ND			
SIBBOCATE BECOMEDIES		99 + 0.				

### SURROGATE RECOVERIES

RESULT	d5-nitrobenzene70	2-fluorobiphenyl78	d14-terphenyl38	d10-biphenyl
SCAN CODE	489 BS1	749 BS2	1326 BS3	BS4
	4	14	7	

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in uq/l unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). / high concentrations. \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute SCAN = scan number or retention time on chromatogram. /enzo(a)anthracene and chrysene comelute;

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Analytical Serv

Serv REPORT Results by Sample

LAB # 86-02-198 Continued From Above

NAME Method 625 Base/Neutrals Category

Minimum detection

SAMPLE ID 860206 H20

FRACTION 06A TEST CODE M625 B Date & Time Collected 02/27/86

 $\mathsf{SL} = \mathsf{detected}$  in reagent blank; background subtraction not performed. indicates dilution of sample if greater than one (1).  $oldsymbol{3}$  = anthracene and phenanthrene co-elute in high concentrations. J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

148 4

RECEIVED: 02/28/86

REPORT Results by Sample Analytical Serv

LAB # 86-02-198

SAMPLE 1D 860206 H20

FRACTION OGA

NAME Pesticides & PCBs by GC/MS

Category FRACTION OGA TEST CODE MS 608 Date & Time Collected 02/27/86

윋 RESULT VERIFIED BY COMPOUNDS DETECTED alpha BHC COMPOUND EPA ANALYST 102P NPDES SCAN 9 DATE EXTRACTED 03/03/86
DATE INJECTED 03/13/86 RESULT 2 aldrin COMPOUND DATA FILE SCU02198COA CONC. FACTOR EPA 89P NPDES SCAN

PCB-1221 103P 104P 105P 106P 107P 108P 109P 110P g B 18P 19P 20P **21P** 22P 4 d C S 뮏 S 2 2 윋 윋 S 4, 4'-DDE 4, 4'-DDD dieldrin chlordane alpha endosulfan beta endosulfan endosulfan sulfate 4, 4'-DDT 90p 916 93P 94P 95P 96P 97P 92P 4 111 12P 14P 10p 9 4 149

gamma BHC beta BHC

뒫

S

S 뮏 PCB-1242 delta BHC

뮏 PCB-1254

2 2 PCB-1232 PCB-1248

일

밁 윋 PCB-1260 PCB-1016

1111

**23P** 

윋

endrin

Š

toxaphene

113P

25P

밀

heptachlor

윋

heptachlor epoxide

112P

**24P** 

윋

endrin aldehyde

999

13P

100P

16P

101P

17P

98P

14P

Analytical Serv	Results by
PAGE 44	RECEIVED: 02/28/86

REPORT by Sample

FRACTION OGA TEST CODE MS 608 Date & Time Collected 02/27/86

LAB # 86-02-198 Continued From Above

NAME Pesticides & PCBs by GC/MS

Category

AND DEFINITIONS FOR THIS REPORT NOTES

SAMPLE ID 860206 H20

All results reported in micrograms/liter unless otherwise specified. SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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PAGE 45 RECEIVED: 02/28/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-02-198

SAMPLE ID Reagent Blank

FRACTION O7A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category Category

5100 INSTRUMENT **ANALYST** DATE EXTRACTED 03/03/86 DATE INJECTED 03/13/86 DATA FILE SCB02198C07 CONC. FACTOR

VERIFIED BY LAK COMPOUNDS DETECTED

RESULT	QN	Q	N	QN	Q	
COMPOUND	4-nitrophenol	2, 4-dinitrophenol	2-methyl-4,6-dinitrophenol	pentachlorophenol	phenol	
EPA	58A	59A	<b>604</b>	64A	<b>65</b> A	
NPDES SCAN	74	Ą	44	9.A	10A	
RESULT	QN	QN	QN	QN	Ñ	C Z
COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol
EPA	21A	22A	24A	314	344	57A
NPDES SCAN	114	88	۷: 4	% 15	∯ 1	<b>6</b> A

### SURROGATE RECOVERIES

RESULT	d5-phenol <u>65</u>	phenol 74	pheno1 100	d3-phenol
COMPOUND	G 5-	2-fluorophenol	2, 4, 6-tribromophenol	1-EP
SCAN CODE	377 AS1	274 AS2	971 AS3	AS4

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram ug/l unless otherw Al esults reported in

PAGE 46 RECEIVED: 02/28/86

Analytical Serv

serv Results by Sample

Continued From Above LAB # 86-02-198

SAMPLE ID Reagent Blank

FRACTION O7A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

 $\mathrm{SL} = \mathsf{detected}$  in reagent  $\mathsf{blank}$ ;  $\mathsf{background}$  subtraction not  $\mathsf{performed}$ . J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1). limits should be multiplied by conc. factor. CONC. FACTOR:

Minimum detection

### RADIAN

PAGE 47 RECEIVED: 02/28/86

Analytical Serv REPORT Results by Sample

LAB # 86-02-198

Second Records Advanced Co.

FRACTION O7A TEST CODE M625 B NAME Method 625 Base/Neutrals SAMPLE ID Reagent Blank

fied Category	S100 COMPOUNDS DETECTED 1	COMPOUND	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate ND	butyl benzyl phthalate ND	di-butyl phthalate1	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A <u>ND</u>	benzo(a)pyrene ND	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A ND	acenaphthylene ND	anthracene R ND	
d not specified	ANALYST INSTRUMENT	SCAN EPA	61B	628	8E9	899	8 <b>2</b> 9	1180 68B	869	708	718	72B	738	748	75B	768	77B	783	
llecte		NPDES	418	438	42B	138	158	26B	29B	248	258	3B	<b>6B</b>	78	9B	188	2B	38	`
te & Time Collected	03/03/86 03/13/86	RESULT	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	QN	ΩN	QN	QN	2	QN	. <u>J</u>
Date &	DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1, 2-dichlorobenzene	1,3-dichlorobenzene	1, 4-dichlorobenzene	3,3'dichlorobenzidine	2, 4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	enyl phenyl ether	
	5 <u>5CB0219BC07</u>	EPA C	18	5B	BB 1, 2, 4	98	128	18B bis(2-	208 2-	258 1,	26B 1,	278 1,	288 3,3,	358	368	378 1,2-	398	40B 4-chlorophenyl	
	DATA FILE CONC. FACTOR	NPDES SCAN	118	48	46B	338	3 <b>6</b> B	118	4 108	ළි <b>15</b> :	3 51B	22B	238	27B	288	298	318	178	<u></u>

KKKKA PERKKA DODDODI SSESSON POLIZIE TELEGORA FKKKSKA KONKKA DODDOLA VKKKKKA TRKKKKKA PODD

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Continued From Above

LAB # 86-02-198

Analytical Serv REPORT Results by Sample

02/28/86

PAGE 48 Received:

NAME Method 625 Base/Neutrals ied Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1,2,3-cd)pyrene ND	pyrene ND				
E M625 B	798	808	818	82B	838	848				
TEST COD	88	32B	448	198	37B	45B				
FRACTION OZA TEST CODE M625 B N Date & Time Collected not specified	QN L	QN	QN	QN	QN	QN	QN	QN		
	4-bromophenyl phenyl ether	bis(2-chloroisopropyl)ether	bis(2-chloroethoxy)methane	hexachlorobutadiene	hexachlorocyclopentadiene	isapharone	naphthalene	nitrobenzene		RESULT
SAMPLE ID Reagent Blank	41B 4-br	42B bis(2	43B bis(	528	53B hex	548	80.00	26B	SURROGATE RECOVERIES	SCAN CODE
SAMPLE I	148	128	108	348	358	88 4	ge 1	ទ្ធ 54	SURROGATI	'SS

NOTES AND DEFINITIONS FOR THIS REPORT.

34

d5-nitrobenzene

2-fluorobiphenyl

d14-terphenyl

**BS3** 

1327

**BS**2

750

BS1

490

BS4

d10-biphenyl

All results reported in uq/l unless otherwise specified. NO = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). high concentrations.  $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram. enzo(a)anthracene and chrysene co-elute

Analytical Serv REPORT LAB # 86-02-198 8/86 Continued From Above	ent Blank FRACTION O7A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category	B = anthracene and phenanthrene co-elute in high concentrations. SL = detected in reagent blank; background subtraction not performed.	Sate (1) ion that sate at a limit
PAGE 49 RECEIVED: 02/28/86	SAMPLE ID Reagent Blank	B = anthracene and BL = detected in re	U = estimated value

Minimum detection ine (1).

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Analytical Serv REPORT Results by Sample

LAB # 86-02-198

SAMPLE ID Reagent Blank

FRACTION O7A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

COMPOUNDS DETECTED BY LAK	COMPOUND	alpha BHC ND	beta BHCND	gamma BHC ND	delta BHC ND	PCB-1242 ND	N ARCT-870
ANALYST	AN EPA	102P	103P	104P	105P	106P	1078
	NPDES SCAN	2P	ě	46	5P	18P	100
<u>03/03/86</u> 03/13/86	RESULT	QN	Q	QN	QN	QV	Ź
DATE EXTRACTED DATE INJECTED	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4. 4 '-nnn
DATA FILE <u>5CB02198C07</u> CONC. FACTOR	EPA	898	90P	916	92P	484	946
CONC	NPDES SCAN	15	10P	<b>6</b> P	4	ե 15	в 6

RESULT	QN	QN	QN	N	N	N	QN	N	Q	Q	N	Q	
	alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
COMPOUND													
EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	111P	112P	113P	
NPDES SCAN	2P	e e	46	e G	18P	19P	20P	21P	22P	23P	24P	25P	
RESULT	QN	Q	QN	QN	QN	Q	ΩN	QΝ	Q	QN	QN	QN	Q
_	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	endosulfan	endosulfan	ın sulfate	endrin	endrin aldehyde	heptachlor	r epoxide
COMPOUND							alpha e	beta e	endosulfan		endrir	£	heptachlor
EPA	896	90P	916	92P	93P	946	95P	96P	97P	986	466	100P	101P
SCAN													
VPDES SCAN	11	10P	<b>6</b> P	7P	4B	96	116	12P	14P	14P	15P	16P	17P

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PAGE 51 RECEIVED: 02/28/86

REPORT Analytical Serv Results by Sample

LAB # 86-02-198 Continued From Above

SAMPLE ID Reagent Blank

FRACTION OZA TEST CODE MS 608 NA Date & Time Collected not specified

NAME Pesticides & PCBs by GC/MS Category

> AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

LAB # 86-02-198

Analytical Serv REPORT NonReported Work

 $\bigcap_{i=1}^{n}$ 

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FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

DUP NS DUP NS DUP NS DUP NS 02B 03B 04B 05B 06B

Analytical Serv

LAB # 86-03-002

Second column confirmation performed for EPA 601: -01,-04,-05; specific matrix was not within acceptable limits indicating Indicates a value less than 5 times the detection limit. CONTACT CONOVER Indicates that spike recovery for this analysis on the CERTIFIED BY Analytical Serv TEST CODES and NAMES used on this report Potential error for such low values ranges between PREPARED Radian Analutical Services Footnotes and Comments \*\*Unknown compound eluting here. Austin, Texas 78766 8501 MoPac Blvd (512) 454-4797 an interferent present. Box 9948 Serv REPORT 03/11/86 11:27:48 <u>9C 601 EPA Method 601/9C</u> <u>9C 602 EPA Method 602/9C</u> for EPA 602: --04 50 and 100X ¥ ATTEN PHONE FACILITY Carswell AFB (Gen. Dunamics) BAMPLES under separate cover SAMPLE IDENTIFICATION 212-027-27-40 ATTEN LATTY Franch groundwater RECEIVED: 03/03/86 Plant 4 REPORT RAGIAN Austin PLANT4 -8, W ES. W. trip blank 860172 860207 B60208 B60209 B60210 860212 B60211 MORK ID INVOICE TYPE CL IENT COMPANY TAKEN TRANS 159 **488488**  <u> 1. 186889 | 186888</u> | 186889 | 1868891 | 186

RECEIVED: 03/03/86

Results by Sample Analytical Serv

REPORT

LAB # 86-03-002

TEST CODE 6C 601 Date & Time Collected 02/28/86 FRACTION OIA SAMPLE 1D 860172

NAME EPA Method 601/GC

Category

VERIFIED BY COMPOUNDS DETECTED COMPOUND HCL ANAL.YBT INSTRUMENT SCAN DATE INJECTED 03/04/84 RESULT COMPOUND DATA FILE CONC. FACTOR SCAN

RESULT

뒫 Chloromethane

윋

물

Ch loroethane

0.30

Methylene Chloride

0.64

Vinyl Chloride

Bromomethane

月

Trichlorofluoromethane

9

1, 1-Dichloroethene

9

1, 1-Dichloroethane

물

Chloroform

trans-1, 2-Dichloroethene 11, 1\*\*

뮏

月

Dibromoch loromethane

Trichloroethene 1.07

1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene

月

月

9

2

Bromoform 2-Chloroethylvinyl Ether

S

9

1, 1, 2, 2-Tetrachloroethane Tetrach loroethy lene

Chlorobenzene

9

9

1, 3-Dichlorobenzene

g

1, 2-Dichlorobenzene

160

1, 2-Dichloroethane

Carbon Tetrachloride 1, 1, 1-Trichloroethane

月

Bromodich loromethans

月

1, 2-Dichloropropane trans-1, 3-Dichloropropene

9

물

9

月

1, 4-Dichlorobenzene

RECEIVED: 03/03/86

SAMPLE 10 860172

FRACTION OIA TEST CODE GC 601 Date & Time Collected 02/28/86

Serv REPORT Results by Sample

Analytical Serv

LAB # 86-03-002 Continued From Above

NAME EPA Method 601/GC

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

<u>ug/L</u> unless otherwise specified. SCAN = scan number or retention time on chromatogram All results reported in

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). #1,1,2,2-tetrachloroethane and tetrachloroethulene co-elute

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LAB # 86-03-002

Serv REPORT RESULTS by Sample

Analytical Serv

RECEIVED: 03/03/86

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2

VERIFIED BY COMPOUNDS DETECTED Trichloroethene 2-Chloroethylvinyl Ether Bromoform 1, 3-Dichlorobenzene 1, 4-Dichlorobenzene 1, 2-Dichlorobenzene Ch lorobenzene NAME EPA Method 601/GC 1, 1, 2, 2-Tetrachloroethane Tetrach loroethy lene Dibromochloromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene Category COMPOUND TEST CODE GC 601 FRACTION OZA TEST CODE GC 60 Date & Time Collected 02/28/86 ANALYST INSTRUMENT SCA DATE INJECTED 03/04/86 9 9 물 9 뮏 9 물 月 呈 9 Q 9 RESUL T Ch lorome thans Vinyl Chloride Methylene Chloride trans-1, 2-Dichloroethene Chloroform 1, 1, 1-Trichloroethane Carbon Tetrachloride 1, 2-Dichlaropropene trans-1, 3-Dichlaropropene Bromomethane Chloroethane Trick lorafluoromethane 1, 1-Dichloroethene 1, 2-Dichloroethane Bromodich loromethane 1, 1-Dichloroethane COMPOUND SAMPLE 1D 860207 DATA FILE CONC. FACTOR BCAN 162

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COCOCOS LOSSESSE DEDIVINA SESSESSE ESCOVER FOSSESSE ESCOVERA DESCOVE DOSCOS ESCOVER DESCO

RECEIVED: 03/03/86

SAMPLE 1D 860207

Serv REPORT Results by Sample

Analytical Serv

LAB # 86-03-002 Continued From Above

NAME EPA Method 601/GC FRACTION OZA TEST CODE GC 601 Date & Time Collected 02/28/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. All results reported in  $\frac{19.1L}{1}$  unless otherwise specified. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). #1,1,2,2—tetrachloroethane and tetrachloroethylene co-elute. BCAN = scan number or retention time on chromatogram

RECEIVED: 03/03/86

Results by Sample Analytical Serv

REPORT

LAB # 86-03-002

SAMPLE 10 860207

FRACTION OZC TEST CODE GC 602

NAME EPA Method 602/GC Category

Date & Time Collected 02/28/86

VERIFIED BY

DATA FILE CONC. FACTOR

DATE INJECTED 03/04/86

ANALYST INSTRUMENT

COMPOUNDS DETECTED

널이

SCA

COMPOUND

RESULT

2

Benzene

SCAN

1, 4-Dichlorobenzene

月

RESULT

COMPOUND

1, 3-Dichlorobenzene

열

月

Ethyl Benzene

Toluene

164

뒫

1, 2-Dich lorobenzene

Chlorobenzene

AND DEFINITIONS FOR THIS REPORT. MOTES

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79). <u>ua/L</u> unless otherwise specified. BCAN = scan number or retention time on chromatogram. All results reported in

Analytical Serv REPORT Results by Sample

LAB # 86-03-002

	FRAC
05/07/00 05/07/00	AMPLE ID 860208
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ביבועכו	APLE.

FRACTION 03A TEST CODE GC 601 NAME EPA Method 601/GC	טיסס רפֿינפּטַטרע	VST MCL VERIFIED BY MCL ENT COMPOUNDS DETECTED 1	COMPOUND RESULT	Trichlorosthene ND	Dibromochloromethane * ND	1, 1, 2-Trichloroethane * ND	cis-1, 3-Dichloropropene * ND	2-Chloroethylvinyl Ether ND	Bromoform ND	1, 1, 2, 2-Tetrachloroethane # ND	Tetrachloroethylene # ND
TEST CODE	ected oz/z	ANALYBT	SCAN								1
FRACTION 03A	res & lime coll	DATE INJECTED 03/04/86	COMPOUND RESULT	Chloromethane ND !	Bromomethane ND	Vinyl Chloride ND	Chloroethane ND	Methylene Chloride 0.34 (	Trichlorofluoromethane ND	1, 1-Dichloroethene ND	1.1-Dichloroethane ND :
SAMPLE 1D 860208		CONC. FACTOR 1	SCAN	1		1	-	-	Trich	1	35

Trichloroethene ND	Dibromochloromethane * ND	1, 1, 2-Trichloroethane * ND	cis-1, 3-Dichloropropene * ND	2-Chloroethylvinyl Ether ND	Bromoform ND	1, 1, 2, 2-Tetrachloroethane # ND	Tetrachloroethylene # ND	Chlorobenzene ND	1, 3-Dichlorobenzene ND	1, 2-Dichlorobenzene ND
		İ								
Chloromethane ND i	Brosomethene ND	Vinyl Chloride ND	Chloroethane ND	Methylene Chloride 0.34	Trichlorofluoromethane ND	1, 1-Dichloroethene ND	1,1-Dichloroethane ND i	trans-1, 2-Dichloroethene ND :	Chloroform ND	1,2-Dichloroethane ND :

열

1, 4-Dichlorobenzene

月

Carbon Tetrachloride

1. 1. 1-Trichloroethane

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Bromodich loromethane

月

1, 2-Dichloropropane

2

trans-1,3-Dichloropropene

\$ PAGE 8 \$ RECEIVED: 03/03/86 SAMPLE 1D 860208

Results by Sample Analytical Serv

CONTROL CONTRO

LAB # 86-03-002

Continued From Above

NAME EPA Method 601/GC Category

FRACTION 03A TEST CODE GC 601 Date & Time Collected 02/28/86

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79) ug/L unless otherwise specified. SCAN = scan number or retention time on chromatogram

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. #1, 1, 2, 2—tetrac.iloroethane and tetrachloroethylene co-elute

CONTRACTOR DESCRIPTION OF THE PROPERTY AND THE PROPERTY OF THE

LAB # 86-03-002

Results by Sample

Analytical Serv

RESULT COMPOUNDS DETECTED VERIFIED BY NAME EPA Method 602/GC 1, 2-Dichlorobenzene 1, 3-Dichlorobenzene 1, 4-Dichlorobenzene Category COMPOUND FRACTION 03C TEST CODE GC 602
Date & Time Collected 02/28/86 ANALYST INSTRUMENT SCAN DATE INJECTED 03/04/86 물 9.64 RESULT Chlorobenzene Ethyl Benzene COMPOUND Benzene Toluene RECEIVED: 03/03/86 SAMPLE 1D 860208 DATA FILE CONC. FACTOR SCA 167 4

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(Federal Register, 12/3/79) ug/L unless otherwise specified. SCAN = scan number or retention time on chromatogram. ND = not detected at EPA detection limit method 602, AND DEFINITIONS FOR THIS REPORT. All results reported in NOTES

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300000000 T 25	PAGE 10 RECEIVED: 03/03/86	98/£0/£0	Analytical Serv Results by	REPORT J Sample	LAB # 86-03-002
	SAMPLE 10 860209	860209	FRACTION 04A Date & Time Co	04A TEST CODE GC 601 ime Collected 02/28/86	1 NAME EPA Method 601/GC Category
	DATA FILE CONC. FACTOR	OR B	DATE INJECTED <u>Q3/04/86</u>	ANALYSTINSTRUMENT	VERIFIED BY MCL S COMPOUNDS DETECTED 6
	SCAN		COMPOUND RESULT	BCAN	COMPDUND RESULT
XXXX			Chloromethane ND	4	Trichloroethene 32.3
			Bromomethane ND		Dibromochloromethane * ND
9886			Vinyl Chloride ND	}	1, 1, 2-Trichloroethane * ND
			Chloroethane ND		cis-1, 3-Dichloropropene * ND
	7		Methylene Chloride 0.37		2-Chloroethylvinyl Ether ND
4 ::::::	1	Trich	Trichlorofluoromethane ND		Bromoform ND
168 	105		1, 1-Dichloroethene ND	1.1	1, 1, 2, 2-Tetrachloroethane # ND
ነ ሌሌሪ።			1, 1-Dichloroethane ND	6	Tetrachloroethylene # 0.17
	24	trans-1.	. 2-Dichloroethene Q. 99**		Chlorobenzene ND
a de la constantia della constantia della constantia de la constantia de la constantia della constantia dell			Chloroform ND		1, 3-Dichlorobenzene ND
			1, 2-Dichloroethane ND	9	1,2-Dichlorobenzene 5.03
3232	6		1,1,1-Trichloroethane 0.07		1, 4-Dichlorobenzene ND
10 C	}	Car	Carbon Tetrachloride ND		
		0 1 00	Bromodichloromethane ND		
<b>1</b> 4142		<b>.</b>	1,2-Dichloropropane ND		
À		1 1 1 4			

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trans-1, 3-Dichloropropene

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SAMPLE 1D 860209

Results by Sample

FRACTION 04A TEST CODE GC 601 Date & Time Collected 02/28/86

LAB # 86-03-002

REPORT

Analytical Serv

Continued From Above NAME EPA Method 601/GC Category

NOTES AND DEFINITIONS FOR THIS REPORT.

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). #1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute. us/L unless otherwise specified. SCAN - scan number or retention time on chromatogram. All results reported in\_

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LAB # 86-03-002

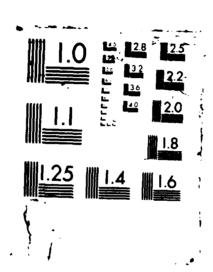
Analytical Serv REPORT Results by Sample

> PAGE 12 RECEIVED: 03/03/86

	BY MCL	RESULT	QN	Q	4.04	
TEST CODE GC 602 NAME EPA Method 602/GC lected 02/28/86 Category	VERIFIED BY COMPOUNDS DETECTED	COMPOUND	1, 4-Dichlorobenzene	1, 3-Dichlorobenzene	1,2-Dichlorobenzene	
FRACTION O4C TEST CODE GC 602 Date & Time Collected 02/28/86	ANALYST	BCAN	1		<b>19</b>	
ON OAC Time Col	03/04/86	RESULT	9	10.9	Q	9
FRACTI Date &	DATE INJECTED <u>03/04/86</u>	Q.	• c	•	8612616	Ch l orobenzene
	9	COMPOUND	Benzene	Toluene	Ethy 1	Ch 1 or
SAMPLE ID 860209	CONC. FACTOR	SCAN		<b>1 4</b> 170		

All results reported in  $\frac{19/L}{1000}$  unless otherwise specified. ND = not detected at EPA detection limit methor 602, (Federal Register, 12/3/79). SCAN - scan number or retention time on chromatogram. AND DEFINITIONS FOR THIS REPORT. MOTES

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UNCLASSIFIED	MUSTIN 17	DEC 97 F	33615-83-0	-4001		F/G 2	24/7	ML	
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i Kun	RESULT	COMPOUND	BCAN	RESULT	COMPOUND	BCAN
ar kar kar ka	VERIFIED BY MCL.	RP COMPOUN	ANALYST	DATE INJECTED <u>03/04/86</u>	G DATE	DATA FILE CONC. FACTOR
	UTO	Category	lected 02/28/86	Date & Time Collected 02/28/86		
	601/6C	NAME EPA Method	TEST CODE GC 601 NAME EPA Method 601/GC	FRACTION 05A		SAPPLE ID 860210
	-005	LAB # 86-03-002	REPORT Sample	Analytical Serv REPU Results by Sample	Ana	E PAGE 13 RECEIVED: 03/03/86
	-				Z.	
2000	\$55550 STATES	22	\$5559 KUUUKU	6555555 2020238		

ANALYST RP COMPOUNDS DETECTED 1	COMPOUND	Trichloroethene ND	Dibromochloromethane * ND	1.1.2-Trichloroethane * ND	cis-1,3-Dichloropropene * ND	2-Chloroethylvinyl Ether ND	Bromoform ND	1, 1, 2, 2-Tetrachloroethane # ND	Tetrachloroethylene # ND	Chlorobenzene ND
ANINSTR	SCAN							j		ļ
DATE INJECTED <u>03/04/86</u>	RESULT	methane ND !	Bromomethane ND	Vinyl Chloride ND	oethane ND	Methylene Chloride 14.3	methane ND	oethene ND	oethane ND	oethene ND
DATE 1	COMPOUND	Ch loromet	Brose	Vingl C	Chlorost	Methylene C	Trichlorofluoromet	1, 1-Dichloroet	1, 1-Dichloroet	trans-1, 2-Dichloroet
DATA FILE	BCAN					7			1	1

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1, 3-Dichlorobenzene

1, 2-Dichlorobenzene

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1, 4-Dichlorobenzene

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1, 1, 1-Trichloroethane

Chloroform

1, 2-Dichloroethane

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Bromodichloromethane

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1, 2-Dichloropropane

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trans-1, 3-Dichloropropene

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Carbon Tetrachloride

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SAMPLE 1D 860210

FRACTION 05A TEST CODE GC 601
Date & Time Collected 02/28/86 Analytical Serv REPO Results by Sample

REPORT

LAB # 86-03-002

Continued From Above

NAME EPA Method 601/60

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

\*Dibromochloromethane, 1,1,2—trichloroethane and cis-1,3—dichloropropene co-elute ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). unless otherwise specified. BCAN = scan number or retention time on chromatogram. All results reported in

#1, 1, 2, 2—tetrachloroethane and tetrachloroethylene co-elute.

172

LAB # 86-03-002

REPORT

Analytical Serv

皇 9 扫기 月 RESULT VERIFIED BY COMPOUNDS DETECTED NATE EPA Method 602/60 1, 4-Dich lorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene Category COMPOUND HCL TEST CODE 6C 602 Date & Time Collected 02/28/86 INSTRUMENT ANALYST SCAN Results by Sample DATE INJECTED 03/05/86 FRACTION 05C g 月 9 7.01 RESULT Chlorobenzene Ethyl Benzene COMPOUND Benzene Toluene RECEIVED: 03/03/86 SAMPLE 10 860210 DATA FILE CONC. FACTOR SCAN 173 4

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN - scan number or retention time on chromatogram.

(Federal Register, 12/3/79) <u>ug/L</u> unless otherwise specified. ND - not detected at EPA detection limit method 602, All results reported in

Analytical Serv

LAB # 86-03-002

VERIFIED BY COMPOUNDS DETECTED Trichloroethene 2-Chloroethylvinyl Ether Bromoform Chlorobenzene 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene NAME EPA Method 601/60 cis-1, 3-Dichloropropene Dibromoch loromethane 1, 1, 2, 2-Tetrachloroethane 1, 1, 2-Trichloroethane Tetrach loroethy lene Category COMPOUND TEST CODE GC 601 Date & Time Collected 02/28/86 ANALYST INSTRUMENT SCAN Serv REPORT Results by Sample DATE INJECTED 03/04/86 FRACTION 06A 9 月 물 뮏 뮉 月 REBULT Ch lorome thane Vinyl Chloride Chloroethane Methylene Chloride 1, 1-Dichloroethane trans-1, 2-Dichloroethene Carbon Tetrachloride trans-1, 3-Dichloropropene Brosome thane Trichlorofluoromethane 1, 1-Dichloroethene Chloroform 1, 2-Dichloroethene 1, 1, 1-Trichloroethane Bromodich loromethane 1, 2-Dichloropropane COMPOUND RECEIVED: 03/03/86 SAMPLE 1D 860211 DATA FILE CONC. FACTOR SCAN 4 174

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PAGE 17 RECEIVED: 03/03/86

SAMPLE 1D 860211

TEST CODE GC 601 FRACTION OGA TEST CODE GC 60 Date & Time Collected 02/28/86

NAME EPA Method 601/00

Category

LAB # 86-03-002 Continued From Above

Analytical Serv Results by Sample

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in  $\frac{uq/L}{L}$  unless otherwise specified. Not detected at EPA detection limit method 601, (Federal Register, 12/3/79). ug/L unless otherwise specified. BCAN = scan number or retention time on chromatogram

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute

#1, 1, 2, 2-tetrachloroethane and tetrachloroethylene co-elute

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March September

		BY MCL	RESULT	Ż	<b>GN</b>	Q.	
LAB # 86-03-002	NAME EPA Method 602/GC Category	VERIFIED BY  COMPOUNDS DETECTED	COMPOUND	1, 4-Dichlorobenzene	1, 3-Dichlorobenzene	1, 2-Dichlorobenzene	
REPORT Sample	FRACTION OGC TEST CODE GC 602 Date & Time Collected 02/28/86	ANALYBT	BCAN				
Serv REP( Results by Sample	ION OGC	INJECTED <u>03/05/86</u>	REGULT	9	1.64	9	g
Analytical Serv Resu	FRACT	DATE	COMPOUND	Benzene	Toluene	Ethųl Benzene	Chlorobenzene
PAGE 18 RECEIVED: 03/03/86	SAMPLE 10 860211	CONC. FACTOR 1	<b>N</b>		4 17	76	

SCAN = scan number or retention time on chromatogram. AND DEFINITIONS FOR THIS REPORT. NOTES

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79). ug/L unless otherwise specified. All results reported in

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REPORT Analytical Serv

LAB # 86-03-002

Results by Sample

Trichloroethene ND RESULT VERIFIED BY MCL COMPOUNDS DETECTED 2-Chloroethylvinyl Ether Bromoform Chlorobenzene NAME EPA Method 601/60 cis-1, 3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane Dibrosoch lorosethane 1, 1, 2-Trichloroethane Tetrach loroethy lene Category COMPOUND TEST CODE 6C 601 FRACTION OZA TEST CODE <u>6C 6</u> Date & Time Collected <u>02/28/86</u> ANALYST SCAN DATE INJECTED 03/04/86 2 g 0.28 月 月 9 뒫 月 月 RESULT Chloromethane Bromome thane Vinyl Chloride Methylene Chloride Trichlorofluoromethane Chloroethene 1, 1-Dichloroethene 1, 1-Dichloroethane trans-1, 2-Dichloroethene COMPOUND SAPLE 1D 860212 DATA FILE CONC. FACTOR SCAN 177

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1, 4-Dichlorobenzene

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1, 1, 1—Trichloroethane

1, 2-Dichloroethane

Chloroform

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Carbon Tetrachloride

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Bromodichloromethane

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1,2-Dichloropropene

9

trans-1, 3-Dichloropropene

1, 2-Dichlorobenzene

1, 3-Dichlorobenzene

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**SAMPLE 1D 860212** 

Analytical Serv REPORT Results by Sample

FRACTION O7A TEST CODE GC 601 Date & Time Collected 02/28/86

LAB # 86-03-002 Continued From Above

NAME EPA Method 601/60

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). ug/L unless otherwise specified BCAN = scan number or retention time on chromatogram. All results reported in\_

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. #1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute

LAB # 86-03-002

REPORT

Analytical Serv

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Results by Sample

RESULT VERIFIED BY COMPOUNDS DETECTED NAME EPA Method 602/60 1. 3-Dichlorobenzene 1, 4-Dichlorobenzene 1, 2-Dichlorobenzene Category COMPOUND FRACTION O7C TEST CODE GC 602
Date & Time Collected 02/28/86 ANALYBT INBTRUMENT SCA DATE INJECTED 03/05/86 月 月 REBULT Ethyl Benzene Chlorobenzene COMPOUND Toluene Benzene SAMPLE 1D 860212 DATA FILE CONC. FACTOR SCAN 179

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AND DEFINITIONS FOR THIS REPORT. ACTES

ug/L unless otherwise specified. SCAN = scan number or retention time on chromatogram.

ND # not detected at EPA detection limit method 602, (Federal Register, 12/3/79). All results reported in

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Analytical Serv REPORT Results by Sample

LAB # 86-03-002

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FRACTION OBA TEST CODE GC 601 NAME EPA Method 601/GC Date & Time Collected not specified Category	ANALYST RP VERIFIED BY MCL INSTRUMENT Q COMPOUNDS DETECTED Q	SCAN COMPOUND RESULT	Trichloroethene	Dibromochloromethane * ND	1, 1, 2-Trichloroethane * ND	cis-1, 3-Dichloropropene * ND	2-Chloroethylvinyl Ether ND	Bromoform ND	1, 1, 2, 2-Tetrachloroethane # ND	Tetrachloroethylene # ND	Chlorobenzene	1, 3-Dichlorobenzene ND	1, 2-Dichlorobenzene ND	1, 4-Dichlorobenzene ND		
FRACTION OBA Date & Time Col	DATE INJECTED 03/04/86	COMPOUND RESULT	Chloromethane ND i	Bromomethane ND	Vinyl Chloride ND	Chloroethane ND	Methylene Chloride ND i	Trichlorofluoromethane ND	1,1-Dichloroethene ND	1,1-Dichloroethane ND	trans-1, 2-Dichloroethene ND i	Chloroform ND	1,2-Dichloroethane ND i	1, 1, 1-Trichloroethane ND i	Carbon Tetrachloride ND	Bromodichloromethane ND :
SAMPLE ID trip blank	DATA FILE GONC. FACTOR	SCAN	1		-		Met	Trichlo	18		trans-1, 2		1, 2	1, 1, 1-	Carbo	06010

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1,2-Dichloropropane

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trans-1, 3-Dichloropropene

SAMPLE ID trip blank RECEIVED: 03/03/86

FRACTION OBA TEST CODE GC 601 NAME EPA Method 601/GC Date & Time Collected not specified Category Analytical Serv

REPORT Results by Sample

LAB # 86-03-002

Continued From Above

Category

NOTES AND DEFINITIONS FOR THIS REPORT

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). #1, 1, 2, 2-tetrachloroethane and tetrachloroethylene co-elute. ug/L unless otherwise specified. BCAN = scan number or retention time on chromatogram. All results reported in

SAMPLE ID trip blank

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DATA FILE CONC. FACTOR

VERIFIED BY MCL.

COMPOUNDS DETECTED

HCL

ANALYBT INSTRUMENT

DATE INJECTED 03/05/84

NAME EPA Method 602/60

FRACTION OBB TEST CODE GC 602 NV Date & Time Collected not specified

Category

LAB # 86-03-002

REPORT

Analytical Serv

Results by Sample

RESULT

COMPOUND

SCAN

RESULT

COMPOUND

SCA

9

1, 2-Dichlorobenzene

Ethyl Benzene

Toluene

182

Ch lorobenzene

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

<u>ug/L</u> unless otherwise specified.

BCAN = scan number or retention time on chromatogram.

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in

1, 3-Dich lorobenzene

1, 4-Dichlorobenzene

2

Benzene

# IVED: 03/03/86

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Analytical Serv REPORT NonReported Work

LAB # 86-03-002

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE DUP 602 DUP 602 DUP 602 DUP 602 020 030 040 050 050 070 DUP 601 DUP 601 DUP 601 DUP 601 DUP 601 **07B** 02B 038 048 058 06B

| KKKKKI| DODODE KKKKKI| SKKKKK| SKKKKI KKKKKK| KKKKKK| KKKKKI DODODE DESTANDING KKKKK

# RADIA

Second column confirmation performed for EPA 601: -01, -05, -07. specific matrix was not within acceptable limits indicating \* Indicates a value less than 5 times the detection limit. CONTACT CONOVER E Indicates that spike recovery for this analysis on the CERTIFIED BY LAB # 86-03-003 Analytical Serv TEST CODES and NAMES used on this report Potential error for such low values ranges between PREPARED Radian Analutical Services Footnotes and Comments \*\*Unknown compound eluting here. Austin, Texas 78766 8501 MoPac Blvd (512) 454-4797 an interferent present, Analytical Serv REPORT 03/11/86 11:37:43 Box 9948 9C 601 EPA Method 601/9C 9C 602 EPA Method 602/9C 50 and 100% PHONE ATTEN BAMPLES B FACILITY Carswell AFB (Gen. Dunamics) under separate cover SAMPLE IDENTIFICATION (860216) field blank (860213) 212-027-27-40 ATTEN Larry French proundwater RECEIVED: 03/03/86 Plant 4 REPORT Radian TO B1. 4 CLIENT PLANT4 Austin field blank -8, HJ 3.15 860214 860216 **B60213** 860215 COMPANY INVOICE MORK ID TAKEN TRANS TYPE **488888888** 184 4

trip blank

# Seese Received British Consisted Seeses Bereich William Received Bereich Bereich Bereich Bereich Bereich Bereich

9 윋 무 9 9 밀 뮏 9 걸 외 RESULT COMPOUNDS DETECTED VERIFIED BY Trichloroethene Bromoform 2-Chloroethylvinyl Ether Chlorobenzene 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene NAME EPA Method 601/GC 1, 1, 2-Trichloroethane 1, 1, 2, 2-Tetrachloroethane Tetrach loroethylene Dibromoch loromethane cis-1, 3-Dichloropropene LAB # 86-03-003 Category COMPOUND 널 TEST CODE GC 601 FRACTION OIA TEST CODE GC 6/10 Date & Time Collected 03/01/86 **ANALYST** INSTRUMENT SCAN REPORT Results by Sample DATE INJECTED 03/05/86 17.0 9 月 月 9 밀 윋 윋 月 S 月 9 9 윋 月 RESULT 0.73 Analytical Serv Chloromethane Vinyl Chloride Methylene Chloride trans-1, 3-Dichloropropene Bromome thane Chloroethane Trichlorofluoromethane 1, 1-Dichloroethene 1,1-Dichloroethane trans-1, 2-Dichloroethene Chloroform 1, 2-Dichloroethane 1, 1, 1-Trichloroethane Carbon Tetrachloride Bromodich loromethane 1,2-Dichloropropane COMPOUND RECEIVED: 03/03/86 SAMPLE 1D 860213 DATA FILE CONC. FACTOR SCAN 185

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Analytical Serv

REPORT Results by Sample

LAB # 86-03-003

Continued From Above

**SAMPLE ID 860213** 

FRACTION 01A TEST CODE GC 601
Date & Time Collected 03/01/86

NAME EPA Method 601/GC Category

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in  $\frac{10/L}{1000}$  unless otherwise specified. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). SCAN = scan number or retention time on chrom

\*Dibromachloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. #1, 1, 2, 2—tetrachloroethane and tetrachloroethylene co-elute.

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PAGE 4 RECEIVED: 03/03/86	Analytical Serv Resu	l Serv REP Results by Sample	REPORT Sample	LAB # 86-03-003	Cablung Und Dad Ca
SAMPLE 10 860213	FR	FRACTION OIC Date & Time Col	V 01C TEST CODE GC 602	NAME EPA Method 602/GC Category	1.2 <sub>1</sub> 0, 4.1, 2.152,15
DATA FILE CONC. FACTOR 1	D DATE INJECT	INJECTED <u>03/05/86</u>	ANALYST INSTRUMENT	MCL VERIFIED BY MCL	Cherentenio
SCAN	COMPOUND	RESULT	SCAN	COMPOUND RESULT	Bereken Bereke
energia de constante	Benzene	Q		1,4-Dichlorobenzene ND	8. 54. 58. 54. 54. 54. 54. 54. 54. 54. 54. 54. 54
4 187	Toluene	1.73		1,3-Dichlorobenzene ND	
elle l'elle l'elle l'elle	Ethyl Benzene	QN		1, 2-Dichlorobenzene ND	
	Chlorobenzene	Q.			en en en en en en en
NOTES AND DEFINITIONS FOR SCAN = scan number or All results reported ND = not detected at	FOR THIS REPORT. er or retention time rted in <u>ug/L</u> unl d at EPA detection l	e on chromato less otherwis limit method	ecified. (Federal	Register, 12/3/79}.	<u>Calentarian Calendarian Calen</u>

Analytical Serv

LAB # 86-03-003

月 9 2 S 9 9 9 9 9 뎦 RESULT COMPOUNDS DETECTED VERIFIED BY Trichloroethene Bromoform 1, 4-Dichlorobenzene 1, 3-Dich lorobenzene 2-Chloroethylvinyl Ether Chlorobenzene 1,2-Dichlorobenzene NAME EPA Method 601/GC cis-1, 3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane Dibromoch loromethane Tetrach loroethy lene 1, 1, 2-Trichloroethane Category COMPOUND RP TEST CODE GC 601 Date & Time Collected 03/01/86 ANALYST INSTRUMENT SCAN Serv REPORT Results by Sample DATE INJECTED 03/04/86 9 물 2 Ž 2 2 9 2 뮏 Q 2 윋 2 물 FRACTION 02A 月 月 RESULT trans-1, 3-Dichloropropene Ch loromethane Chloroethane trans-1, 2-Dichloroethene Chloroform 1, 2-Dichloroethane 1, 1, 1-Trichloroethane Carbon Tetrachloride Bromodich loromethane Vinyl Chloride Trichlorofluoromethane 1, 1-Dichloroethene 1, 1-Dichloroethane 1, 2-Dichloropropane **Bromomethane** Methylene Chloride COMPOUND SAMPLE ID field blank (860213) 9 RECEIVED: 03/03/86 DATA FILE CONC. FACTOR SCAN 188

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Analytical Serv

REPORT Results by Sample

LAB # 86-03-003 Continued From Above

NAME EPA Method 601/60 Category

SAMPLE ID field blank (860213)

FRACTION OZA TEST CODE GC 601 Date & Time Collected 03/01/86

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. All results reported in  $\frac{10/L}{1000}$  unless otherwise specified. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79).

#1, 1, 2, 2-tetrachloroethane and tetrachloroethylene co-elute

			ED BY MCL	RESULT	Q	Q	QN	
	LAB # 86-03-003	TEST CODE GC 602 NAME EPA Method 602/GC ected 03/01/86 Category	VERIFIED BY COMPOUNDS DETECTED	COMPOUND	1, 4-Dichlorobenzene	1.3-Dichlorobenzene	1,2-Dichlorobenzene	
	REPORT Sample	RACTION O2C TEST CODE GC 602 late & Time Collected 03/01/86	ANALYST	SCAN				
Cod Labor	Serv Results by Sample	FRACTION <u>02C</u> Date & Time Co	INJECTED <u>03/05/86</u>	RESULT	Q Q	3, 56	T CO	<b>Q</b>
idi.	Analytical		D DATE INJECT	COMPOUND		Toluene	Ethyl Benzene	Chlorobenzene
RADI	PAGE 7 RECEIVED: 03/03/86	SAMPLE ID field blank (860213)	CONC. FACTOR	SCAN		<b>7 4</b> 19	0	
	<b>1531553</b> 5531	5000000	<u> </u>					

AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number or retention time on chromatogram.

All results reported in  $\frac{ug/L}{L}$  unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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RESULT COMPOUNDS DETECTED VERIFIED BY Trichloroethene Bromoform 2-Chloroethylvinyl Ether Chlorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene 1, 4-Dichlorobenzene NAME EPA Method 601/GC Dibromoch loromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane **Tetrach loroethy lene** Category COMPOUND 뭠 FRACTION 03A TEST CODE GC 601 Date & Time Collected 03/01/86 ANALYBT INSTRUMENT SCAN Results by Sample DATE INJECTED 03/04/86 FRACTION 03A 물 月 月 月 月 月 月 月 月 月 月 月 月 月 RESULT 0. 37 Chloromethane Vinyl Chloride Methylene Chloride Bromomethane Chloroethane Trichlorofluoromethane 1, 1-Dichloroethene Chloroform 1, 2-Dichloroethane 1, 1, 1-Trichloroethane Carbon Tetrachloride 1, 1-Dichloroethene trans-1, 2-Dichloroethene 1, 2-Dichloropropane Bromodichloromethane COMPOUND RECEIVED: 03/03/86 SAMPLE 10 860214 DATA FILE CONC. FACTOR SCAN 191

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LAB # 86-03-003

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trans-1, 3-Dichloropropene

PAGE 9 RECEIVED: 03/03/86

SAMPLE 10 860214

Serv REPORT RESULTS by Sample Analytical Serv

FRACTION 03A TEST CODE GC 601 Date & Time Collected 03/01/86

LAB # 86-03-003 Continued From Above

NAME EPA Method 601/GC Category

NOTES AND DEFINITIONS FOR THIS REPORT

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). ug/L unless otherwise specified. SCAN = scan number or retention time on chromatogram All results reported in

#1, 1, 2, 2—tetrachloroethane and tetrachloroethylene co-elute.

192

RECEED INVINITY VINERAL ECOLOR VILLER SESSION 
RESULT VERIFIED BY COMPOUNDS DETECTED NAME EPA Method 602/GC 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene Category COMPOUND 뭠 TEST CODE 6C 602 FRACTION O3C TEST CODE GC 60 Date & Time Collected 03/01/86 ANALYST INSTRUMENT SCAN Results by Sample DATE INJECTED 03/05/86 9 月 月 RESULT 1.16 Ethyl Benzene Chlorobenzene COMPOUND Benzene Toluene **SAMPLE ID 860214** DATA FILE CONC. FACTOR SCAN 193

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LAB # 86-03-003

REPORT

Analytical Serv

RECEIVED: 03/03/86

PAGE 10

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

All results reported in  $\frac{ug/L}{}$  unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

RECEIVED: 03/03/86

COMPOUND 걸 FRACTION 04A TEST CODE GC 601 Date & Time Collected 03/01/86 ANALYST INSTRUMENT SCAN DATE INJECTED 03/05/86 月 2 2 뒫 月 RESULT 0.73 Ch loromethane Vinyl Chloride Chloroethane Methylene Chloride Brosomethane Trichlorofluoromethane COMPOUND SAMPLE ID 860215 DATA FILE CONC. FACTOR SCAN

9 9 얼 皇 윋 月 月 윋 RESULT 덜 VERIFIED BY COMPOUNDS DETECTED Trichloroethene Bromoform 2-Chloroethylvinyl Ether Ch lorobenzene 1, 2-Dichlorobenzene 1,3-Dichlorobenzene NAME EPA Method 601/GC Dibromoch loromethane 1, 1, 2, 2-Tetrachloroethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene **Tetrachloroethylene** LAB # 86-03-003 Category REPORT Results by Sample 月 뮏 윋 뒫 月 Analytical Serv 1, 1-Dichloroethane Chloroform 1, 2-Dichloroethane 1, 1-Dichloroethene trans-1, 2-Dichloroethene 1, 1, 1-Trichloroethane

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1, 4-Dichlorobenzene

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Carbon Tetrachloride

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Bromodichloromethane

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1, 2-Dichloropropene

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trans-1, 3-Dichloropropene

PAGE 12
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		BY MCL	RESULT	Q	QN	QN	
LAB # 86-03-003	NAME EPA Method 602/60 Category	VERIFIED BY  4 COMPOUNDS DETECTED	COMPOUND	1,4-Dichlorobenzene	1,3-Dichlorobenzene	1,2-Dichlorobenzene	
REPORT Sample	FRACTION 04C TEST CODE GC 602 Date & Time Collected 03/01/86	ANAL YST INSTRUMENT	SCAN				
Serv   REP    Results by Sample	ACTION 04C	DATE INJECTED <u>03/05/86</u>	RESULT	Q Q	1. 46	QN	ON CONTRACT
Analytical	A Par	DATE INJECT	COMPOUND		Toluene	Ethyl Benzene	Chlorobenzene
PAGE 13 RECEIVED: 03/03/86	SAMPLE ID 860215	CONC. FACTOR 1	SCAN		4 1	96	

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in  $\frac{100/L}{L}$  unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79). SCAN = scan number or retention time on chromatogram.

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Serv Results by Sample Analytical Serv

LAB # 86-03-003

SAMPLE 1D 860216

NAME EPA Method 601/GC TEST CODE GC 601 Date & Time Collected 03/01/86 FRACTION 05A

8.0 **1**2 RESULT VERIFIED BY COMPOUNDS DETECTED Trichloroethene Category COMPOUND 뮙 **ANALYST** INSTRUMENT SCAN DATE INJECTED 03/05/86 月 RESULT Ch loromethane COMPOUND DATA FILE CONC. FACTOR SCAN

1, 1, 2-Trichloroethane Dibromoch loromethane

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밀 cis-1, 3-Dichloropropene

밀 밁 Bromoform 2-Chloroethylvinyl Ether

1, 1, 2, 2-Tetrachloroethane

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Trichlorofluoromethane

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1, 1-Dichloroethene

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1, 1-Dichloroethane

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trans-1, 2-Dichloroethene

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Methylene Chloride

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Chloroethane

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Bromomethane

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Vinyl Chloride

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皇 Tetrach loroethy lene 문 1, 3-Dichlorobenzene

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Chloroform

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1, 2-Dichloroethane

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1, 1, 1-Trichloroethane

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Bromodich loromethane

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1,2-Dichloropropane

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Carbon Tetrachloride

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trans-1, 3-Dichloropropene

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Chlorobenzene

멸 1, 2-Dichlorobenzene S 1, 4-Dichlorobenzene

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SAMPLE ID 860216

REPORT Serv reru Results by Sample Analytical Serv

LAB # 86-03-003 Continued From Above

NAME EPA Method 601/GC

FRACTION OSA TEST CODE GC 601 Date & Time Collected 03/01/86

Category

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN \* scan number or retention time on chromatogram

ug/L unless otherwise specified All results reported in\_

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). #1,1,2,2—tetrachloroethane and tetrachloroethylene co-elute

COMPOUNDS DETECTED VERIFIED BY NAME EPA Method 602/GC 1, 2-Dichlorobenzene 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene Category COMPOUND 뮙 FRACTION 05C TEST CODE GC 602
Date & Time Collected 03/01/86 ANALYST INSTRUMENT SCAN DATE INJECTED 03/05/86 月 2 문 叧 RESULT Ethyl Benzene Chlorobenzene COMPOUND Benzene Toluene SAMPLE 1D 860216 DATA FILE CONC. FACTOR SCAN 199

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LAB # 86-03-003

REPORT

Analytical Serv

RECEIVED: 03/03/86

Results by Sample

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram. All results reported in

ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79). <u>uq/L</u> unless otherwise specified.

601 NAME EPA Method 601/GC 86 Category	VERIFIED BY MCL	COMPOUND RESULT	Trichloroethene 0.22	Dibromochloromethane * ND	1, 1, 2-Trichloroethane * ND	cis-1, 3-Dichloropropene * ND	2-Chloroethylvinyl Ether ND	Bromoform ND	1, 1, 2, 2-Tetrachloroethane # ND	Tetrachloroethylene # ND	Chlorobenzene ND	1, 3-Dichlorobenzene ND	1, 2-Dichlorobenzene ND	1, 4-Dichlorobenzene ND					
TEST CODE 60	ANAL YS INSTRUMEN	SCAN	2																
FRACTION OGA Date & Time Col	INJECTED 03/05/86	RESULT	omethane ND	nomethane ND	Chloride ND	proethane ND	Chloride 0.93	omethane ND	proethene ND	proethene ND	proethene ND	loroform ND	oroethane ND	oroethene ND	nchioride ND	romethane ND	opropene ND	ropropene ND	)
ank (860216)	G DATE	COMPOUND	Ch 1 or	Broa	Vinyl	Chic	Methylene	Trichlorofluor	1, 1-Dichle	1, 1-Dichle	trans-1,2-Dichlo	טֿ	1, 2-Dichle	1, 1, 1-Trichlo	Carbon Tetra	Bromodichlor	1,2-Dichlor	trans-1,3-Dichlor	
SAMPLE ID field bl	DATA FILE	SCAN	1				7	4	2	00					1		1		ؽ
	SAMPLE ID field blank (860216) FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC Date & Time Collected 03/01/86 Category	ID field blank (860216) FRACTION OGA TEST CODE GC 601 NAME EPA Method 601/GC  Date & Time Collected 03/01/86 Category  A FILE G DATE INJECTED 03/05/86 ANALYST RP COMPOUNDS DETECTED BY  FACTOR 1 COMPOUNDS DETECTED	ID field blank (860216) FRACTION OGA TEST CODE GC 601 NAME EPA Method 601/GC  Date & Time Collected 03/01/86 Category  A FILE COMPOUND DATE INJECTED 03/05/86 INSTRUMENT COMPOUNDS DETECTED BY  SCAN COMPOUND RESULT SCAN COMPOUND RES	ID field blank (860216) FRACTION OGA TEST CODE GC 601 NAME EPA Method 601/GC  Date & Time Collected 03/01/86 Category  A FILE G DATE INJECTED 93/05/86 ANALYST RP COMPOUNDS DETECTED SCAN COMPOUND RESULT SCAN COMPOUND RESULT SCAN COMPOUND RESULT SCAN COMPOUND CHIOTOGETHORE Q	ID field blank (860216) FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC  Date & Time Collected 03/01/86 Category  A FILE  A FILE  COMPOUND  COMPOUND  Chloromethane  ND   2	ID field blank (860216) FRACTION OGA TEST CODE GC 601 NAME EPA Method 601/GC  Date & Time Collected 03/01/86 Category  A FILE 6 DATE INJECTED 03/05/86 INSTRUMENT 8 COMPOUNDS DETECTED 8Y  FACTOR 1 Chloromethane ND 1 SCAN COMPOUND RESULT SCAN	The field blank (860216)  A FILE  A FILE  COMPOUND  Comp	The field blank (860216)  A FILE  A FILE  A FILE  B DATE INJECTED 93/95/86  ANALYST  ANALYS  ANALYST  ANALYS  ANALYS  ANALYS  ANALYS  ANALYS  ANALYS  ANALYS	ID field blank (860216) FRACTION 06A TEST CODE GC 601 NAME EPA Method 601/GC  Date & Time Collected 03/01/86 Category  A FILE FACTOR  COMPOUND  SCAN  COMPOUND  RESULT  RESULT  RESULT  SCAN  COMPOUND  RESULT  RESULT  SCAN  COMPOUND  RESULT  RESULT  SCAN  COMPOUND  RESULT  RESULT  RESULT  SCAN  COMPOUND  RESULT  RESULT  RESULT  SCAN  COMPOUND  RESULT	MPLE ID field blank (860216) FRACTION OGA TEST CODE GC 601 NAME EPA Method 601/GC  Date & Time Collected 03/01/86 Category  DATA FILE BATE INJECTED 03/05/86 INSTRUMENT ROPE COMPOUNDS DETECTED RES  COMPOUND RESULT SCAN COMPOUND RESULT SCAN COMPOUND RES  Chloromethane ND RESULT SCAN COMPOUND RES  Chloromethane ND RESULT SCAN COMPOUND RES  Trichlorofluoromethane ND RESULT SCAN CASTICHLOROPEDANE **  Chloromethane ND RESULT SCAN COMPOUND RESULT SCAN CAMPOUND RES  Trichlorofluoromethane ND RESULT SCAN CASTICHLOROPEDANE **  Trichlorophane Chloride O.93 RESULT SCAN CASTICHLOROPHANE **  Trichlorophane Chloride O.93 RESULT S	ID field blank (860216) FRACTION OGA TEST CODE GC 601 NAME EPA Method 601/GC  Date & Time Collected 03/01/86 Category  A FILE C DATE INJECTED 03/05/86 INSTRUMENT R COMPOUNDS DETECTED SCAN  COMPOUND RESULT SCAN COMPOUND RESULT SCAN COMPOUNDS DETECTED TO VINJ Chloroethane ND Chloroethane	Park   10   Field blank (860216)	MPLE ID field blank (860216)  Date & Time Collected 03/01/86  Date Invected 03/01/86  Date Invected 03/01/86  Date Invected 03/01/86  Date Invected 03/01/86  Category  Chloromethane  Chloromethane  Chloromethane  Vinyl Chloride  Chloromethane  Chloromethane  Chloromethane  Chloromethane  Chloromethane  In Hethylene Chloride  Chloromethane  In Indichloromethane  Chloromethane  In Indichloromethane  Chloromethane  In Indichloromethane  Chloromethane  Chloromethane  Chloromethane  In Indichloromethane  Chloromethane  Chloromethane  Chloromethane  In Indichloromethane  Chloromethane  In Indichloromethane  Chloromethane  Chloromethane  Chloromethane  In Indichloromethane  Chloromethane  In Indichloromethane  Chloromethane   Name	NPLE ID field blank (860216)  Date & Time Collected 03/01/86  Date & Time Collected 03/01/86  Date INJECTED 03/05/84  NOTIFIED BY  SCAN  COMPOUND  RESULT  SCAN  COMPOUND  COMPOUND  Trichloroethene  W  1.1.2.2—Trichloroethene  Chloroethylvinyl Ether  1.1.1—Dichloroethene  Chloroethyloroethene  Chloroethylo	NOTE ID field blank (860216)	MPLE ID field blank (860216)  Date & Time Collected 03/01/86  Date & Time Collected 03/01/86  No. FACTOR  SCAN  COMPOUND  RESULT  SCAN  COMPOUND  COMPOUND  RESULT  SCAN  COMPOUND  COMPOUND  RESULT  SCAN  COMPOUND  RESULT  SCAN  COMPOUND  RESULT  COMPOUND  RESULT  COMPOUND  RESULT  COMPOUND  COMPOUND  RESULT  COMPOUND  COMPOUND  RESULT  COMPOUND  COMPOUND  RESULT  COMPOUND  RESULT  COMPOUND  COMPOUND  RESULT  COMPOUND  COMPOUND  RESULT  COMPOUND  COMPOUND  RE	PATA FILE   G   Late   Late	Park   Park	

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SAMPLE ID field blank (860216)

Serv REPORT RESULTS by Sample Analytical Serv

LAB # 86-03-003 Continued From Above

NAME EPA Method 601/GC Category

FRACTION OGA TEST CODE GC 601 Date & Time Collected 03/01/86

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/L unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in

\*Dibromochloromethane, 1,1,2—trichloroethane and cis—1,3—dichloropropene co-elute. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). #1,1,2,2-tetrachloroethane and tetrachloroethylene co-elute.

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LAB # 86-03-003

REPORT

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2 RESULT 2 COMPOUNDS DETECTED VERIFIED BY NAME EPA Method 602/60 1, 4-Dichlorobenzene 1. 3-Dichlorobenzene 1, 2-Dichlorobenzene Category COMPOUND FRACTION OGC TEST CODE GC 602 Date & Time Collected 03/01/86 ANALYST INSTRUMENT SCAN Results by Sample DATE INJECTED 03/05/86 月 2 S RESULT 밁 Chlorobenzene Ethyl Benzene COMPOUND Benzene Toluene SAMPLE ID field blank (860216) RECEIVED: 03/03/86 DATA FILE CONC. FACTOR SCAN 202

AND DEFINITIONS FOR THIS REPORT. NOTES

<u>ug/L</u> unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in

ND = not detected at EPA detection limit methor 602, (Federal Register, 12/3/79)

9. 98 윋 S 2 밁 9 2 2 2 덪 RESULT 0.41 COMPOUNDS DETECTED VERIFIED BY Trichloroethene Bromoform 2-Chloroethylvinyl Ether Chlorobenzene 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene NAME EPA Method 601/GC 1, 1, 2, 2-Tetrachloroethane Dibromoch loromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene Tetrach loroethy lene LAB # 86-03-003 Category COMPOUND 띪 TEST CODE GC 601 Date & Time Collected 03/01/86 ANALYST INSTRUMENT SCAN Serv REPORT Results by Sample DATE INJECTED 03/05/86 Z 멸 물 2 月 뮏 윋 뮏 욷 月 FRACTION 07A 뮏 9 윋 2 月 trans-1,2-Dichloroethene 26.1++ RESULT Analytical Serv Ch loromethane trans-1, 3-Dichloropropene Vinyl Chloride Ch loroethane Chloroform Methylene Chloride 1, 1-Dichloroethene 1, 2-Dichloroethane Carbon Tetrachloride 1, 2-Dichloropropane Bromomethane Trich lorofluoromethane 1, 1-Dichloroethane 1, 1, 1-Trichloroethane Bromodichloromethane COMPOUND PAGE 20 RECEIVED: 03/03/86 SAMPLE 1D 860217 DATA FILE CONC. FACTOR SCAN

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03/03/86

Analytical Serv REPORT Results by Sample

LAB # 86-03-003 Continued From Above

NAME EPA Method 601/GC

Category

SAMPLE 1D 860217

FRACTION OZA TEST CODE GC 601 Date & Time Collected 03/01/86

NOTES AND DEFINITIONS FOR THIS REPORT

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79). unless otherwise specified SCAN = scan number or retention time on chromatogram V9/L All results reported in\_

#1, 1, 2, 2—tetrachloroethane and tetrachloroethylene co-elute.

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LAB # 86-03-003

Serv REPORT Results by Sample

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	D BY MCL CTED 0	RESULT	Q	Q	Q		
FRACTION O7C TEST CODE GC 602 NAME EPA Method 602/GC Date & Time Collected 03/01/86	RP VERIFIED BY COMPOUNDS DETECTED	COMPOUND	1,4-Dichlorobenzene	1,3-Dichlorobenzene	1,2-Dichlorobenzene		
TEST CODE <u>CC 602</u> lected 03/01/86	ANALYST	SCAN					
RACTION O7C ate & Time Col	DATE INJECTED <u>03/05/86</u>	RESULT	<b>S</b>	Q.	Q	QN	
		COMPOUND	Ben zene	Toluene	Ethyl Benzene	Chlorobenzene	
SAMPLE ID 860217	DATA FILE D	SCAN		4 2	05		

AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number or retention time on chromatogram.

All results reported in  $\frac{19.7L}{10.000}$  unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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PAGE 23 RECEIVED: 03/03/86

REPORT Results by Sample Analytical Serv

LAB # 86-03-003

FRACTION OBA TEST CODE GC 601 NAME EPA Method 601/GC Category Date & Time Collected not specified SAMPLE ID trip blank

뎚 열 月 Š 9 月 月 윋 RESULT COMPOUNDS DETECTED VERIFIED BY Trichloroethene Bromoform 2-Chloroethylvinyl Ether Chlorobenzene cis-1, 3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane Dibromoch loromethane 1. 1. 2-Trichloroethane Tetrach loroethy lene COMPOUND 뭠ㅁ ANALYST INSTRUMENT SCAN DATE INJECTED 03/05/86 뮏 뮏 月 月 月 물 뮏 뫼 月 RESULT Chloromethane Bromomethane Trichlorofluoromethane Vinyl Chloride Chloroethane Methylene Chloride 1, 1-Dichloroethene 1. 1-Dichloroethane trans-1, 2-Dichloroethene COMPOUND 0 DATA FILE CONC. FACTOR SCAN 4

月 묏 윋 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene 1, 4-Dichlorobenzene

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Chloroform

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1, 2-Dichloroethane

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1, 1, 1-Trichloroethane

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月

1,2-Dichloropropane

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trans-1, 3-Dichloropropene

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Carbon Tetrachloride

Bromodichloromethane

PAGE 24 RECEIVED: 03/03/86

Analytical Serv

Serv REPORT Results by Sample

LAB # 86-03-003 Continued From Above

SAMPLE ID trip blank

FRACTION OBA TEST CODE GC 601 NA Date & Time Collected not specified

NAME EPA Method 601/GC Category

NOTES AND DEFINITIO S FOR THIS REPORT

\*Dibromochloromethane, 1,1,2-trichloroethane and cis-1,3-dichloropropene co-elute. ND = not detected at EPA detection limit method 601, (Federal Register, 12/3/79) All results reported in <u>vg/L</u> unless otherwise specified SCAN = scan number or retention time on chromatogram

#1, 1, 2, 2—tetrachloroethane and tetrachloroethylene co-elute.

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CORPORATION

LAB # 86-03-003

REPORT

Analytical Serv

열 月 RESULT COMPOUNDS DETECTED VERIFIED BY FRACTION OBB TEST CODE GC 602 NAME EPA Method 602/GC 1. 3-Dichlorobenzene 1, 2-Dichlorobenzene 1, 4-Dichlorobenzene Category COMPOUND Late & Time Collected not specified ANALYST INSTRUMENT SCAN Results by Sample DATE INJECTED 03/05/86 물 9 윋 RESULT Ethyl Benzene Chlorobenzene COMPOUND Tolvene Benzene SAMPLE ID trip blank RECEIVED: 03/03/86 DATA FILE CONC. FACTOR SCAN 208 4

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AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number or retention time on chromatogram.

All results reported in  $\frac{4g/L}{4}$  unless otherwise specified. ND = not detected at EPA detection limit method 602, (Federal Register, 12/3/79).

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LAB # 86-03-003

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**DUP602** 

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DUP602	<b>DUP602</b>	<b>DUP602</b>	<b>DUP602</b>	DUP602	<b>DUP602</b>
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050	OSD	040	020	09D	07D
<b>DUP601</b>	<b>DUP601</b>	<b>DUP601</b>	<b>DUP601</b>	<b>DUP601</b>	<b>DUP601</b>
••	••	••	••		
02B	03B	04B	058	06B	07B
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PAGE

Analytical Serv

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LAB # 86-03-004

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REPORT Radian Austin

COMPANY Plant 4 FACILITY Carswell AFB (Gen. Dynamics) ATTEN Larry French CLIENT PLANTA

PREPARED Radian Analytical Services Austin, Texas 78765 8501 MoPac Blvd P O Box 9748 (512) 454-4797 PHONE ATTEN

CONTACT CONDVER

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WURK ID groundwater		TRANS FS, WJ		2-027-27-0	e cover
WUKK ID	IAKEN	TRANS	TYPE	# O d	INVOICE

Indicates a value less than 5 times the detection limit tential error for such low values ranges between

Footnotes and Comments

and 100%

specific matrix was not within acceptable limits indicating O Indicates that spike recovery for this analysis on the an interferent present

SAMPLE IDENTIFICATION

HC IR 807:098 860210 860216 Z02098 860209 350213 H50215 860217 S1503B 11.70.21 8,60211

Analytical Serv TEST CODES and NAMES used on this report ONG IR Oil and Grease, Infrared PB GA Lead, low level SF GA Selenium, low level Digestion by Method Digestion by Method Mercury, Cold Vapor Selenium, low level Arsenic, low level Chromium, ICPES Cadmium, ICPES AG E SILVEL, ICPES
AS GA ATSENIC, 10W 1
BA E Barlum, ICPES
CD E Cadmium, ICPES
CR E Chromium, ICPE
DG3020 Digestion by M
DG6010 Digestion by M Barlum, ICPES Hydrocarbons

ACCOUNT FARRAGE BACACAN BESTELLA BACACAN FERRACE LOCACAN PROPERTY LOCACAN PROPERTY

SECTION DESCRIPTION ASSESSED.

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LAB # 85-03-004				
Analytical Serv REPURT RESULTS BY TEST	Sample 11		<b>□</b>	
PAGE 4 RECETVED: 03/03/85	ts (eq.	HC_1R	ONG IR	.3

GENTIFIED BY specific matrix was not within acceptable limits indicating \* Indicates a value less than 5 times the detection limit. @ Indicates that spike recovery for this analysis on the LAB # 86-03-018 Analytical Serv TEST CODES and NAMES used on this report Potential error for such low values ranges between PREPARED <u>Radian Analutical Services</u> BY 8501 MoPac Blvd. Footnotes and Comments MANUAL SECTION OF SEC Austin, Texas 78766 EX 625 Extraction only - 625 BN/A Pesticides & PCBs by GC/MS M625 A Method 625 Acid Compounds M625 B Method 625 Base/Neutrals MS 608 Pesticides & PCBs bu GC/MS (512) 454-4797 Box 9948 an interferent present. Analytical Serv REPORT 04/10/86 10:21:27 P. O. 50 and 100% PHONE ATTEN SAMPLES General Dunamics, Plant 4 **DEHL Plant 4, Bldg 4** under separate cover 860211 Duplicate Analusis Radian Corporation Federal 736746464 860210 Matrix Spike BNA <u>General Dunamics</u> SAMPLE IDENTIFICATION 212-027-27-40 Austin, Texas Austin, Texas Larry French RECEIVED: 03/04/86 PLANT 4 2/28/86 B60209 H2D 860212 H20 B60210 H20 860211 H20 150 150 TYPE REPORT INVOICE CLIENT FACILITY WORK ID TAKEN TRANS COMPANY ATTEN ص 0. 의<mark>여</mark>없었임임임 214 4

CONTACT FRENCH

PROTOGI SCOTCO SOMEONE ENGINE THOUGH SERSENT SECONDAL WOLLD DECORD SOMEONED SERVICE

Reagent Blank BNA Method Spike BNA

T S S S S S S S S S S S S S S S S S S S	ORATION		ماران مارانانا في		
PAGE 2 RECEIVED: 03/04/86	Analy	Analytical Serv RESULTS BY TEST	REPORT Test	LAB # 86-03-018	-018
TEST CODE	Sample 01 (entered units)	Sample <u>02</u> (entered units)	Sample <u>03</u> (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
EX_625	03/05/86	03/02/86	03/02/86	03/02/86	03/05/86
					03/02/86
TEST CODE	Sample 06 (entered units)				
EX_625 date complete	03/02/86				

# CORPORATION

PAGE 3 RECEIVED: 03/04/86

REPORT Results by Sample Analytical Serv

LAB # 86-03-018

SAMPLE 1D 860209 H20

FRACTION O1A TEST CODE M625 A
Date & Time Collected 02/28/86

NAME Method 625 Acid Compounds Category

NERIFIED BY LAK 5100 COMPOUNDS DETECTED O	COMPOUND	4-nitrophenol ND	2,4-dinitrophenol ND	2-methyl-4,6-dinitrophenol ND	pentachlorophenol ND	phenol ND	
ANAL YST	EPA	38A	39A	<b>60A</b>	64A	<b>63A</b>	
ANALYST INSTRUMENT	SCAN						
-	NPDES SCAN	7	€ n	4	4	10A	
<u>03/06/86</u> 03/24/86	RESULT	QN	QN	QN	QN	QN	QN
DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2, 4-dimethylphenol	2-nitrophenol
DATA FILE SCUGGOIBCOL	_	2, 4	4-ch 1		••	•	
R SCUG	EPA	21A	22A	24A	314	34A	57A
A FILI FACTO	SCAN						
DAT CONC.	NPDES	114	89 A	14	8A	₩ 1.0	<b>6</b> A
la l	estatata	i di la		<b>4</b> ১১১	2 ::::::	16	

### SURROGATE RECOVERIES

COMPOUND	d5-phenol59%	2-fluorophenol66%	2, 4, 6-tribromophenol69%	d3-phenol
CODE	AS1	AS2	AS3	AS4
SCAN CODE	488	272	696	

ug/l unless otherwise specified SCAN = scan number or retention time on chromatogram. AND DEFINITIONS FOR THIS REPORT. All results reported in NOTES

Analytical Serv

SAMPLE ID 860209 H20 RECEIVED: 03/04/86

limits should be multiplied by conc. factor.

CONC. FACTOR:

LAB # 86-03-018 Continued From Above

FRACTION 01A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 02/28/86 Category Minimum detection Category NO = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank; background subtraction not performed. indicates dilution of sample if greater than one (1). REPORT Results by Sample J = estimated value: less than method detection limit.

ample	TEST CODE M625 B NAME Method 625 Base/Ne
Results by Sampl	FRACTION 01A TEST CODE M625 B
/ED: 03/04/86	ID 860209 H20

KADIAN

SAMPLE	SAMPLE ID 860209 H20	H20	FRACTION O1A TEST CODE M625 Date & Time Collected 02/28/86	TEST ollecte	TEST CODE M625 B ected 02/28/86	NAME Method 625 Base/Neut
14B	418	4-bromophenyl phenyl	ether ND	88	798	benzo(ghi)perylene_
12B	42B	bis(2-chloroisopropyl)	ropullether ND	32B	808	fluorene
108	43B	bis(2-chloroethoxy)me	oxy)methane ND	44B	818	phenanthrene B _
34B	32B	hexachlorobutadiene	adiene ND	19B	828	dibenzo(a,h)anthracene
358	93B	hexachlorocyclopenta	ppentadiene ND	37B	838	indeno(1, 2, 3-cd)pyrene
38 <b>B</b>	348	1 sop	1 sophorone ND	43B	848	enerad
39B	33B	naphti	naphthalene ND			
40B	26B	nitrobenzene	enzene ND			
SURROGATE	GATE RECOVERIES	ERIES				
4	SCAN CODE	RESULT				
1 2	488 BS1	d5-nitrol	nitrobenzene 48			
219	747 BS2	2-fluorobiphenyl	iphenyl 36			
<b>)</b>	1324 BS3	d14-te1	14-terphenyl 50			
	<b>BS4</b>	d10-b	d10-biphenyl			
NOTES	AND DEFINITIONS	ITIONS FOR THIS REPORT.				
	SCAN = scan All results NO = not det	an number or retention tides reported in ug/1 undetected at EPA detection	me on less o lisit	200	ram. specified. 25, (Federal Reg	Register, 10/26/84).
		anthene acene an	(k)fluorant e co-elute	in high	Blute. concentra	

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LAB # 86-03-018 Continued From Above

Analytical Serv REPORT Results by Sample

PAGE 6 RECEIVED: 03/04/86 P

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Q

SAMPLE 1D 860209 H20

LAB # 86-03-018 Continued From Above

Minimum detection

indicates dilution of sample if greater than one (1).

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

PAGE 7
RECEIVED: 03/04/86
Results by Sample
Continued From Above NAME Method 625 Base/Neutrals Category a detected in reagent blank; background subtraction not performed. FRACTION O1A TEST CODE M625 B Date & Time Collected 02/28/86 and phenanthrene co-elute in high concentrations. ı serv REPORT Results by Sample B = anthracene

9.		A COMPANY	NO.			MARKE		**************************************
	PAGE 8 RECEIVED: (	03/04/86	Analytical Se Re	Serv Results by	REPORT Sample		LAB # 86-03-018	an a
	SAMPLE 10 8602	860209 H20	FRACTION Date & T	ION <u>OIA</u> TEST ( & Time Collected	TEST CODE lected 02/2	MS 608	NAME Pesticides & PCBs by Category	- 6C/NS
	DATA FILE CONC. FACTOR	LE <u>5CU03018C01</u> DR	DATE EXTRACTED DATE INJECTED	<u>03/06/86</u> 03/24/86	Ā	ANALYBT	VERIFIED BY COMPOUNDS DETECTED	₩ G O
	NPDES SCAN	EPA	COMPOUND	RESULT N	NPDES SCAN	EPA	COMPOUND	RESULT
	1.P	899	aldrin	Q	25 P	102P	alpha BHC _	Q Q
	10P	90P	dieldrin	QN	36	103P	beta BHC _	Q
	<b>6</b> P	916	chlordane	QN	46	104P	gamma BHC	S. S. S.
4	d. 4	92P	4, 4'-DDT	Q	d.	105P	delta BHC _	S S
4 L.	ծ 22	93P	4, 4'-DDE	QN	18P	106P	PCB-1242	Q
T	g 1	946	4, 4'-DDD	Q	19P	107P	PCB-1254 _	QN
	11P	939	alpha endosulfan	QN	20P	108P	PCB-1221	Q
	12P	496	beta endosulfan	Q	21P	109P	PCB-1232	Q Q
	14P	976	endosulfan sulfate	Q	22P	110P	PCB-1248	Q
	146	98P	endrin	Q	23P	111P	PCB-1260	Q
	136	466	endrin aldehyde	Q	24P	112P	PCB-1016	Q
	16P	100P	heptachlor	Q	23P	113P	toxaphene	ON CO
	17P	101P	heptachlor epoxide	Q				render o
	)			)	`\			ra taki
			A CONTRACTOR MANAGEMENT A	C. T. S. S. S. S. S. S. S.	D. S.			Santa assessment

## CONTRACTOR SECURIOR NAME OF SECURIOR SE

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IGE 9 CEIVED: 03/04/86	MPLE ID 860209 H20
GE 9 CEIVED:	MPLE 10

ı serv Results by Sample ical Serv

LAB # 86-03-018 Continued From Above

NAME Pesticides & PCBs by GC/MS

FRACTION O1A TEST CODE MS 608 Date & Time Collected 02/28/86

Category

AND DEFINITIONS FOR THIS REPORT NOTES

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

### 155 555 KKKK

RECEIVED: 03/04/86 PAGE 10

Serv REPORT Results by Sample Analytical Serv

LAB # 86-03-018

SAMPLE ID 860210 H2D

FRACTION OZA TEST CODE M625 A
Date & Time Collected 02/28/86

NAME Method 625 Acid Compounds Category

DATE EXTRACTED 03/06/86 DATE INJECTED 03/24/86

ANALYST 5100

DATA FILE SCU03018C02 CONC. FACTOR

VERIFIED BY LAK

EPA NPDES SCAN

COMPOUNDS DETECTED

RESULT

COMPOUND

EPA

NPDES SCAN

RESULT

COMPOUND

**58A** 

7

윋

**59A** 

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일

4-nitrophenol

2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2, 4-dichlorophenol 2, 4-dimethylphenol 22A 24A 31A 34A 21A **57A** 114 8 34 4 **P** 223

g

2-methyl-4,6-dinitrophenol

**60A** 

44

뮏

2-chlorophenol

64A

4

뮏

**63A** 

10A

뮏

윋

2-nitrophenol

윋

pentachlorophenol

2

phenol

月

2, 4-dinitrophenol

SURROGATE RECOVERIES

COMPOUND SCAN CODE AS1 375

60%

d5-phenol\_

RESULT

37%

2-fluorophenol

ASB AS2 970 272

70% 2, 4, 6-tribromophenol

AS4

d3-phenol NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwine specified SCAN = scan number or retention time on chromatogram All results reported in

PAGE 11 RECEIVED: 03/04/86

Analytical Serv

REPORT Results by Sample

LAB # 86-03-018 Continued From Above

SAMPLE ID 860210 H20

TEST CODE M625 A FRACTION OZA TEST CODE M625 Date & Time Collected 02/28/86

NAME Method 625 Acid Compounds Category

ND  $^{\rm s}$  not detected at EPA detection limit method 6.25, (Federal Register, 11/26/84). BL  $^{\rm s}$  detected in reagent blank, background subtraction not performed.

Minimum detection indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

	,					
PAGE 12 RECEIVED:	2 ED: 03/04/86	Analytical Se Re	Serv Results by	REPORT Sample		LAB # 86-03-018
AMPLE	SAMPLE ID 860210 H20	FRACTION Date & T	RION OZA TEST ( & Time Collected		02/28/86	NAME Method 625 Base/Neutrals Category
DATA CONC. F	DATA FILE <u>\$CU03018CO2</u> vc. Factor	DATE EXTRACTED DATE INJECTED	03/06/86 03/24/86	ANALYST INSTRUMENT	ANALYST	VERIFIED BY LAK 5100 COMPOUNDS DETECTED 2
NPDES S	SCAN EPA	COMPOUND	RESULT N	NPDES SCAN	EPA	COMPOUND
18	1.8	acenaphthene	QN	418	61B	N-nitrosodimethylamine ND
4B	38	benzidine	Q	43B	62B	N-nitrosodiphenylamine ND
46B	8B 1.7	1, 2, 4-trichlorobenzene	QV	42B	63B	N-nitrosodi-n-propylamine ND
33B	9.8	hexachlorobenzene	QN	13B 1515	66B t	bis(2-ethylhexyl)phthalate 3
368	128	hexachloroethane	QN	15B	67B	butyl benzyl phthalate ND
118	18B bis	bis(2-chloroethyl)ether	QN	26B 1179	88 <b>9</b>	di-butyl phthalate 2 BL
16B	20B	2-chloronaphthalene	QN	29B	849	di-n-octyl phthalate ND
20B	258	1, 2-dichlorobenzene	QN	24B	70B	diethyl phthalate ND
218	268	1, 3-dichlorobenzene	QN	25B	71B	dimethyl phthalate ND
22B	27B	1, 4-dichlorobenzene	DN	<b>3B</b>	72B	benzo(a)anthracene A ND
238	288 3,	3,3'dichlorobenzidine	Q	<b>89</b>	73B	benzo(a)pyrene
278	358	2, 4-dinitrotoluene	QN	78	74B	benzo(b) fluoranthene * ND
288	36B	2,6-dinitrotoluene	QN	9.8	75B	benzo(k)fluoranthene * ND
298	378 1,	1,2-diphenylhydrazine	QV	168	76B	chrysene A ND
318	398	fluoranthene	QN	28	778	acenaphthylene ND
17B	40B 4-chlorophenyl	ophenyl phenyl ether	QN	38	78B	anthracene B ND
333	)		<b>-</b> )	,		

	LAB # 86-03-018 Continued From Above	NAME Method 625 Base/Neutrals Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1, 2, 3-cd)pyrene ND	ON energe						•				Register, 10/26/84). Itions.	STANDARD SESSECUL PROPERTY BECOME WASKED DESCRIPTION
	RT	FRACTION OZA TEST CODE M625 B Date & Time Collected 02/28/86	79B	808	818	818	828	838	848										rel ntre	77.85.85.75
	REPORT Sample	TEST C llected	88	328	44B	44B	198	378	40B										18 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.556556
	Serv Results by Sample	ON OZA Time Co	QN	QN	Q 2	QN	Q	QN	Q	QN	QN			43	25	75			there setth	
	Analytical Serv Resu	FRACTI Date &	nyl phenyl ether	bis(2-chloroisopropyl)ether	bis(2-chloroethoxy)methane	bis(2-chloroethoxy)methane	hexachlorobutadiene	hexachlorocyclopentadiene	1 sophorone	naphthalene	nitrobenzene		RESULT	d5-nitrobenzene	2-fluorobiphenyl	d14-terphenyl	d10-biphenyl	11S REPORT.	retention ti N VG/1 un A detection ne and benzo and chrysen	CIRCOSSEE TOUSENSY TRANSPARENT
MANAGA	<b>%</b>	) H20	4-bromophenyl	bis(2-chlore	bis(2-chlor	bis(2-chlor	Fx Ou	hexachlord				RIES						AND DEFINITIONS FOR THIS REPORT	<pre>= scan number or re results reported in not detected at EPA enzo(b)fluoranthene benzo(a)anthracene a</pre>	7277 Testses
	03/04/86	860210	41B	42B	43B	43B	32B	338	348	33B	268	RECOVE	SCAN CODE	2 <u>0</u> 851	18 BS2	25 BS3	<b>BS4</b>	) DEFINI	L \0	
	PAGE 13 RECEIVED:	SAMPLE ID 860210 H20	148	128	108	108	348	338	388	398	40B	SURROGATE RECOVERIES	42S	2	26	1325		NOTES AND	SCAN A11 NO *	
i konici	<b>(2003)</b>			elekik Kalan	نذنات	XXX				MAS.	<u>SN</u>				<b>.</b>					

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PAGE	RECI

SAMPLE ID 860210 H20

Analytical Serv

LAB # 86-03-018 Continued From Above

Category

NAME Method 625 Base/Neutrals FRACTION 02A TEST CODE M625 B Date & Time Collected 02/28/86 REPORT Results by Sample

3L = detected in reagent blank; background subtraction not performed

J = estimated value; less than method detection limit.

factor.

limits should be multiplied by conc.

CONC. FACTOR:

B = anthracene and phenanthrene co-elute in high concentrations

Minimum detection indicates dilution of sample if greater than one (1).

03/04/86
ECE IVED:

Results by Sample Analytical Serv

LAB # 86-03-018

REPORT

SAMPLE 1D 860210 H20

FRACTION 02A TEST CODE MS 608 Date & Time Collected 02/28/86

NAME Pesticides & PCBs by GC/MS Category

王 ANALYST DATE EXTRACTED 03/06/86 DATE INJECTED 03/24/86 DATA FILE SCU03018C02 CONC. FACTOR

A O VERIFIED BY COMPOUNDS DETECTED

RESULT	C	C	CN	C	Z ND	4 ND	1 ND	GN 2	B ND	QNO	dN 9	QN s	
	alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
COMPOUND													
EPA	102P	103P	104P	105P	106P	1076	108P	109P	110P	1116	112P	1136	
S SCAN	25	æ	4	an a	۰	<u>o</u>	<u>o</u>	<u>م</u>	Q.	<u>a</u>	<u>a</u>	<u>e</u>	
NPDES	ni 				186	196		216	22P	33b	245 P45	236	
RESULT	Q	Ž	Q	N	Q.	Q.	S	QN	QN	QN	QN	QN	QN
RESULT	aldrin ND	dieldrin ND	chlordene ND	4, 4'-DDT ND	4, 4'-DDE ND	4, 4'-DDD ND	1fan	1fan	sulfate	endrin ND	hyde	hlor	epoxide
COMPOUND RESULT	drin	drin	dene	-ррт	-DDE	aaa-			fate				ride
EPA COMPOUND	drin	drin	dene	-ррт	-DDE	aaa-	endosulfan	endosulfan	sulfate		hyde	hlor	epoxide
EPA COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor	heptachlor epoxide
COMPOUND	aldrin	dieldrin	chlordane	7P 92P 4, 4'-DDT	8P 93P 4,4'-DDE	4, 4'-DDD	11P 95P alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor	heptachlor epoxide

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PAGE 16 RECEIVED: 03/04/86

Analytical Serv REPORT Results by Sample

LAB # 86-03-018 Continued From Above

SAMPLE ID 860210 H20

FRACTION OZA TEST CODE MS 608 Date & Time Collected 02/28/86

NAME Pesticides & PCBs by GC/MS Category

AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

DDDDD] KCCCCC 666553[ 666563] DDDDDJ 566665[ DDSDDGC [BSSDDJ] DDDGC [KCCCC

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RECEIVED: 03/04/86 PAGE 17

REPORT Results by Sample Analytical Serv

LAB # 86-03-018

SAMPLE 1D 860211 H20

FRACTION 03A TEST CODE M625 A
Date & Time Collected 02/28/86

NAME Method 625 Acid Compounds Category

DATE EXTRACTED 03/06/86 DATE INJECTED 03/24/86

INSTRUMENT ANALYST

VERIFIED BY LAK COMPOUNDS DETECTED

윋

RESULT

윋

윋

2

2

phenol

DATA FILE SCU03018C03

5100

4-nitrophenol 2-methyl-4, 6-dinitrophenol 2, 4-dinitrophenol pentachlorophenol COMPOUND **60A** EPA **58A 39A 64A 63A** RESULT NPDES SCAN Y V 10A 40 4 4 月 月 月 月 물 2 2, 4, 6-trichlorophenol 2, 4-dichlorophenol 2, 4-dimethylphenol 2-nitrophenol 4-chloro-3-methylphenol 2-chlorophenol COMPOUND EPA 22A 21A 24A 314 344 **57A** NPDES SCAN 11A 8 4 9 **6**A 230

SURROGATE RECOVERIES

COMPOUND SCAN CODE

d5-phenol AS1 376 273

AS2

70%

RESULT

2, 4, 6—tribromophenol\_ AS3

2-fluorophenol

77%

d3-phenol

AS4

970

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/1 unless otherwime specified. SCAN = scan number or retention time on chromatogram All results reported in

RECEIVED: 03/04/86 PAGE 18

Analytical Serv

Results by Sample

REPORT

LAB # 86-03-018 Continued From Above

SAMPLE 1D 860211 H20

NAME Method 625 Acid Compounds

Category

Minimum detection

indicates dilution of sample if greater than one (1).

U m estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

ND  $^{st}$  not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL - detected in reagent blank; background subtraction not performed. FRACTION 03A TEST CODE M625 A
Date & Time Collected 02/28/86

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PAGE 19					RFPORT			
APPLE ID 860211 H20         FRACTION 03A INSTANCE         TEST CODE 7628         NAME (01/28/86)         Category           DATA FILE SCU03018CO3         DATE EXTRACTED 03/24/84         INATRUMENT 5100         Category           DBATA FILE SCU03018CO3         DATE INJECTED 03/24/84         INATRUMENT 5100         COMPOUND RESULT NPDES SCAN EPA COMPOUND RESULT	÷	04/86		lts by	Samp le		#	
DATA FILE         SCUNGIOLS         DATE EXTRACTED         03/24/84         INBTRUMENT         TIME         COMPOUNDS DETECTED           DATE INJECTED         03/24/84         INBTRUMENT         100         COMPOUNDS DETECTED           DATE INJECTED         03/24/84         INBTRUMENT         TAB         COMPOUNDS DETECTED           18         acenaphthene         ND         4.88         6.28         N-nitrosodimethylamine           468         88         1.2.4-trichlorobenzene         ND         4.28         6.28         N-nitrosodiphenylamine           338         98         herzehlorobenzene         ND         4.28         6.28         N-nitrosodiphenylamine           348         98         herzehlorobenzene         ND         1.38         6.88         N-nitrosodiphenylamine           348         128         berzehlorobenzene         ND         1.28         6.78         N-nitrosodiphenylamine           348         2.08         1.2-dichlorobenzene         ND         2.88         Aimethyl phthalate           258         2.26         1.4-dichlorobenzidine         ND         2.88         5.28         benzo(k)fluoranthene         4           278         2.26         1.2-dinitrotoluene         ND         1.88	SAMPLE 10 860	211 H20	FRACTI Date &		TEST CODE MA lected <u>02/28</u>	اجه	E Method 625 Base/Neutral Category	ر ا
DDES         SCAN         FPA         COMPOUND         RESULT         NPDES         CAB         NP-nitrosodimethylamine         RESULT         NP-nitrosodimethylamine         RESULT         NP-nitrosodimethylamine         RESULT         APS         CAB         MILL         APS         CAB         MILL         APS	DATA FILE CONC. FACTOR	<u> 5cuoao18coa</u>	Let		ANALYE INSTRUMER	2100	VERIFIED BY COMPOUNDS DETECTED	弒이
18         18         accemebaththene         ND         418         618         N-nitrosodimethylamine           48         38         benzidine         ND         438         628         N-nitrosodiphenylamine           338         98         1,2,4-trichlorobenzene         ND         138         668         bis(2-chylhezyl)amine           338         128         hexachlorobenzene         ND         138         668         bis(2-chylhezyl)amine           118         128         hexachlorobenzene         ND         268         678         butyl benzyl phthalate           118         128         2-chioroaphthalene         ND         268         678         diaethyl phthalate           208         2-chioroaphthalene         ND         298         698         diaethyl phthalate           208         2-chioroaphthalene         ND         298         698         diaethyl phthalate           208         2-chioroaphthalene         ND         298         678         diaethyl phthalate           218         2-dichlorobenzene         ND         298         728         benzo(a)anthracene           228         2-dichlorobenzidiene         ND         78         78         benzo(a)anthracene	SCAN		MPOUND	SULT	SCAN	∢.		ב
48         98         benildine         ND         438         628         N-nitrosodiphenulamine           38         1,2,4-trichlorobenzene         ND         138         648         N-nitrosodi-n-propulamine           38         1,2,4-trichlorobenzene         ND         138         668         bis(2-ethylhexul)phthalate           368         128         hexachloroethane         ND         138         668         bis(2-ethylhexul)phthalate           118         188         bis(2-chloroethyl)ether         ND         268         678         diethyl phthalate           208         2-chloromaphthalene         ND         288         698         diethyl phthalate           208         2-chloromaphthalene         ND         288         698         diethyl phthalate           208         2-chloromaphthalene         ND         288         698         diethyl phthalate           218         2-chloromaphthalene         ND         288         728         benzo(a)phthalate           228         1, 4-dichlorobenzidine         ND         68         788         benzo(a)phthalate           278         3-6         1, 2-diphenylhydrazine         ND         78         benzo(a)phthalate           288         <	18	18	acenaphthene	QN				Q
46B         8B         1,2,4-trichlorobenzene         ND         42B         64B         N-nitrosodi-n-propylamine           35B         7B         hexachlorobenzene         ND         13B         66B         bis(2-chyl)heighthelate           36B         12B         hexachlorobenzene         ND         13B         67B         butyl benzyl phthalate           11B         13B         bis(2-chlorobenzene         ND         29B         69B         diethyl phthalate           20B         2-chloronaphthalane         ND         24B         70B         diethyl phthalate           20B         2-B         69B         diethyl phthalate         Alechlorobenzene         ND         24B         70B         diethyl phthalate           21B         2-B         1,2-dichlorobenzene         ND         28B         73B         benzo(a)phthalate         Alechlorobenzene         Alechlorobenzene         ND         78B         benzo(a)phthalate           22B         2.B         1,4-dichlorobenzidine         ND         7B         7B         benzo(a)phrene         Alechlorobenzene         Alechlorobenzene         Alechlorobenzene         Alechlorobenzene         Alechlorobenzene         Alechlorobenzene         Alechlorobenzene         Alechlorobenzene         Alechlorobenzene	48	SB	benzidine	Q				Q
33B         98         herachlorobenzene         ND         13B         66B         bis(2-ehhylhealate           11B         15B         hexachloroethane         ND         26B         67B         butyl benzyl phthalate           11B         15B         bis(2-chloroethyl)ether         ND         26B         67B         diathyl phthalate           20B         2-chloronaphthalene         ND         29B         69B         diathyl phthalate           20B         2-chloronaphthalene         ND         29B         69B         diathyl phthalate           21B         2-b         40B         diathyl phthalate         Almethyl phthalate           21B         2-b         70B         40B         diathyl phthalate           22B         1, 3-dichlorobenzidine         ND         5B         7B         benzo(a)anthracene           27B         3-3 dichlorobenzidine         ND         7B         7B         benzo(b)fluoranthene         *           27B         3-B         7-B         5B         7-B         benzo(a)ptracene         A           27B         3-B         7-B         benzo(a)ptracene         A         Chrysene         A           27B         1, 2-diphenylhydrazine         ND <td>46B</td> <td></td> <td>trichlorobenzene</td> <td>Q</td> <td></td> <td></td> <td></td> <td>SI SI</td>	46B		trichlorobenzene	Q				SI SI
36B         12B         hexachlorosthane         ND         15B         67B         buttyl benzyl phthalate           16B         20B         2-chlorosthyl)ether         ND         29B         69B         di-butyl phthalate           20B         2-chlorosthyl)ether         ND         29B         69B         di-butyl phthalate           20B         2-chlorosthyl)ether         ND         24B         70B         diathyl phthalate           21B         25B         1,3-dichlorobenzene         ND         25B         72B         benzo(a)anthracene           22B         27B         1,4-dichlorobenzidine         ND         6B         73B         benzo(a)fluoranthene           27B         35B         2,4-dinitrotoluene         ND         7B         7B         benzo(b)fluoranthene           27B         35B         2,6-dinitrotoluene         ND         1BB         7bB         benzo(b)fluoranthene           27B         37B         1,2-diphenylhydrazine         ND         1BB         7bB         chrysene           27B         37B         7B         7B         acenaphthylene	338		exachlorobenzene	Q				Q.
118         188         bis(2-chloroethyl)ether         ND         268         688         di-butyl phthalate           168         208         2-chloronaphthalene         ND         298         698         di-n-octyl phthalate           208         2-chloronaphthalene         ND         248         708         diaethyl phthalate           218         2-chlorobenzene         ND         298         718         diaethyl phthalate           228         1, 4-dichlorobenzene         ND         298         728         benzo(a)athracene         Alaethyl phthalate           238         278         1, 4-dichlorobenzidine         ND         68         738         benzo(a)athracene         Alaethyl phthalate           278         358         2, 4-dinitrotoluene         ND         78         78         benzo(k)fluoranthene         *           298         378         1, 2-diphenylhydrazine         ND         188         768         chrysene         A           298         378         1, 2-diphenylhydrazine         ND         188         768         chrysene         A           298         378         1, 2-diphenylhydrazine         ND         188         778         chrysene         A		2B	hexachloroethane	Q			benzyl phthalate	9
168         208         2-chloronaphthalene         ND         298         698         di-n-octyl phthalate           208         1,2-dichlorobenzene         ND         248         708         diethyl phthalate           218         268         1,3-dichlorobenzene         ND         258         718         dimethyl phthalate           228         278         1,4-dichlorobenzene         ND         58         728         benzo(a)anthracene         A           278         28         3,3'dichlorobenzidine         ND         78         benzo(b)fluoranthene         A           278         358         2,4-dinitrotoluene         ND         78         benzo(b)fluoranthene         A           278         378         1,2-diphenylhydrazine         ND         188         768         chrysene         A           278         378         1,2-diphenylhydrazine         ND         188         768         chrysene         A           278         400         188         768         chrysene         A           278         400         188         778         chrysene         A           278         400         188         778         chrysene         A	118		hloroethyl)ether	Q		38	phthalate	
20B         25B         1,2-dichlorobenzene         ND         24B         70B         dimethyl phthalate           21B         26B         1,3-dichlorobenzene         ND         25B         72B         benzo(a)anthracene         A           22B         27B         1,4-dichlorobenzidine         ND         6B         73B         benzo(a)anthracene         A           27B         28B         3,3'dichlorobenzidine         ND         7B         7B         benzo(a)gluene         A           27B         35B         2,4-dinitrotoluene         ND         7B         7B         benzo(b)fluoranthene         A           29B         37B         1,2-diphenylhydrazine         ND         1BB         76B         chrysene         A           29B         37B         1,2-diphenylhydrazine         ND         1BB         76B         chrysene         A           31B         39B         fluoranthene         ND         2B         7B         acenaphthylene           31B         40B         4-chlorophenyl phenyl ether         ND         3B         7B         anthracene	168		hloronaphthalene	QN			-n-octyl phthalate	QN
26B         1, 4-dichlorobenzene         ND         25B         71B         dimethyl phthalate           27B         1, 4-dichlorobenzidine         ND         5B         72B         benzo(a)anthracene         A           28B         3, 3'dichlorobenzidine         ND         7B         7B         74B         benzo(a)fluoranthene         *           35B         2, 4-dinitrotoluene         ND         7B         7B         benzo(b)fluoranthene         *           35B         2, 6-dinitrotoluene         ND         1BB         7B         benzo(b)fluoranthene         *           37B         1, 2-diphenylhydrazine         ND         1BB         7B         chrysene         A           37B         fluoranthene         ND         2B         7B         acenaphthylene           40B         4-chlorophenyl phenyl ether         ND         3B         7B         anthracene	20B		-dichlorobenzene	Q		8	phthalate	S
27B         1,4-dichlorobenzidine         ND         5B         72B         benzo(a)anthracene         A           28B         3,3'dichlorobenzidine         ND         6B         73B         benzo(b)fluoranthene         *           35B         2,4-dinitrotoluene         ND         7B         75B         benzo(k)fluoranthene         *           35B         2,6-dinitrotoluene         ND         18B         76B         benzo(k)fluoranthene         *           37B         1,2-diphenylhydrazine         ND         18B         76B         chrysene         A           37B         1,2-diphenylhydrazine         ND         18B         76B         chrysene         A           37B         fluoranthene         ND         2B         77B         acenaphthylene           440B         4-chlorophenyl phenyl ether         ND         3B         7BB         anthracene				Q		<b>.</b>	phthalate	열
28B         3,3'dichlorobenzidine         ND         6B         73B         benzo(b)fluoranthene         *           35B         2,4-dinitrotoluene         ND         7B         75B         benzo(k)fluoranthene         *           35B         2,6-dinitrotoluene         ND         18B         75B         benzo(k)fluoranthene         *           37B         1,2-diphenylhydrazine         ND         18B         76B         chrysene         A           37B         1,2-diphenylhydrazine         ND         18B         76B         chrysene         A           37B         fluoranthene         ND         2B         77B         acenaphthylene           40B         4-chlorophenyl phenyl ether         ND         3B         7BB         anthracene		1,	-dichlorobenzene	QN			<b>4</b>	9
358         2,4-dinitrotoluene         ND         1         78         758         benzo(k)fluoranthene         *           368         2,6-dinitrotoluene         ND         1         98         758         benzo(k)fluoranthene         *           378         1,2-diphenylhydrazine         ND         1         188         768         chrysene         A           378         1,2-diphenylhydrazine         ND         1         188         768         acenaphthylene           398         fluoranthene         ND         28         778         acenaphthylene           408         4-chlorophenyl phenyl ether         ND         38         78B         anthracene			ichlorobenzidine	Q		38		9
368 2,6-dinitrotoluene ND i 98 758 benzo(k)fluoranthene * 378 1,2-diphenylhydrazine ND i 188 768 chrysene A 378 1,2-diphenylhydrazine ND i 188 768 chrysene A 378 fluoranthene ND i 28 778 acenephthylene 408 4-chlorophenyl phenyl ether ND 38 788 anthracene			4-dinitrotoluene	QN			*	
37B 1,2-diphenylhydrazine ND i 18B 76B chrysene A 37B 1,2-diphenylhydrazine ND i 18B 76B chrysene A 39B fluoranthene ND i 2B 77B acenaphthylene 40B 4-chlorophenyl phenyl ether ND 3B 78B anthracene		2,		Q			*	月
37B 1,2-diphenylhydrazine ND i 18B 76B chrysene A acenaphthylene 39B fluoranthene ND i 2B 77B acenaphthylene 40B 4-chlorophenyl phenyl ether ND 3B 78B anthracene			iphenylhydrazine	QN		8.0	∢	2
39B fluoranthene ND i 2B 77B acenaphthylene 40B 4-chlorophenyl phenyl ether ND 3B 78B anthracene			iphenylhydrazine	QN		89	∢	9
408 4-chlorophenyl phenyl ether ND 38 788 anthracene		9B	fluoranthene	Q		æ		QN
			pheny1	Q (		38		Q

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LAB # 86-03-018 Continued From Above

Serv REPORT Results by Sample

Analytical Serv

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SAMPL	ы П	SAMPLE ID 860211 H20		FRACTION O3A		TEST CODE M625 B	NAME Method 625 Base/Neutrals
				t e	e Collecte	& Time Collected 02/28/86	Category
148	_	41B	4-bromophenyl phenyl	ether	SB - GN	79B	benzo(ghi)perylene ND
128		42B	bis(2-chloroisopropyl)e	ther	ND : 328	808	fluorene ND
108		438	bis(2-chloroethoxy)meth	9116	ND 1 44B	818	phenanthrene B ND
348		32B	hexachlorobutad:	lene l	ND : 198	828	dibenzo(a, h) anthracene ND
338	_	338	hexachlorocyclopentad	lene	37B	838	indeno(1,2,3-cd)pyrene ND
388	_	348	1 sophor	•uo.	ND : 458	848	ON surene
39B		33B	naphtha	•u•1	 9		
40B		268	nitroben	suez	- ON		
SURRO	GATE	SURROGATE RECOVERIES	RIES				
	SCAN	SCAN CODE	RESULT				
4	491	BS1	d5-nitroben	zene	43%		
23	750	) BS2	2-fluorobiph	eny1	34%		
3	1326	5 BS3	d14-terph	eny1	7.29		
		<b>BS4</b>	d10-biph	pheny1	1		
CALCIN	ONA.	DEFINI	NOTES AND DEFINITIONS FOR THIS REPORT				

NOTES AND DEFINITIONS FOR THIS REPORT.

NO = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). \* henzo(a)anthracene and chrysene co-elute in high concentrations. ug/l unless otherwise specified. a benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN m scan number or retention time on chromatogram. All results reported in\_\_\_

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Analytical Serv

Serv REPORT Results by Sample

LAB # 86-03-018 Continued From Above

NAME Method 625 Base/Neutrals

Category

BL = detected in reagent blank, background subtraction not performed FRACTION 03A TEST CODE M625 B B = anthracene and phenanthrene co-elute in high concentrations Date & Time Collected 02/28/86 SAMPLE 1D 860211 H20

J = estimated value: less than method detection limit.

limits should be multiplied by conc. factor.

Minimum detection indicates dilution of sample if greater than one (1).

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REPORT Results by Sample Analytical Serv

LAB # 86-03-018

SAMPLE 1D 860211 H2G

FRACTION 03A TEST CODE MS 608 Date & Time Collected 02/28/86

NAME Pesticides & PCBs by GC/MS Category

퓐 ANALYST DATE EXTRACTED 03/06/86
DATE INJECTED 03/24/86 DATA FILE SCU03018C03

A O VERIFIED BY COMPOUNDS DETECTED

윋 뮏 윋 일 윋 月 皇 얼 9 뒫 月 REBULT PCB-1242 PCB-1248 PCB-1260 alpha BHC gamma BHC delta BHC PCB-1232 PCB-1016 beta BHC PCB-1254 toxaphene PCB-1221 COMPOUND EPA 102P 103P 104P 105P 111P 106P 107P 108P 109P 110P 112P 113P NPDES SCAN 200 **21P** 22P 235 24P 235 P P 18P 19P ч ğ RESULT 뒫 윋 g 2 물 윋 뮏 月 月 2 윋 물 S aldrin dieldrin 4, 4'-DDE 4, 4'-DDD chlordene alpha endosulfan beta endosulfan endrin heptachlor epoxide 4, 4'-DDT endosulfan sulfate endrin aldehyde heptachlor COMPOUND EPA **89P** 90P 92P 94P **496** 97P **98**P 466 91P 93P 936 100P 101P NPDES SCAN 10 10P 9 11P **12**P 14P 14P 13P 16P 17P 235

NOIAVAOANONA PARMINATA SOOMARKANASA SOOMAANASA SOOMAANASA NOOMAANASA NOOMAANASA NOOMAANASA NOOMAANASA NOOMAANASA NOOMAANASA NOOMAANASA

REPORT Results by Sample Analytical Serv PAGE 23 RECEIVED: 03/04/86

LAB # 86-03-018 Continued From Above

Category

NAME Pesticides & PCBs by GC/MS FRACTION 03A TEST CODE MS 608 Date & Time Collected 02/28/86 SAMPLE 1D 860211 H20

SCAN = scan number on chromatogram. AND DEFINITIONS FOR THIS REPORT. NOTES

method 625, (Federal Register, 12/3/79). unless otherwise specified. All results reported in micrograms/liter ND = not detected at EPA detection limit

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Results by Sample Analytical Serv

LAB # 86-03-018

REPORT

SAMPLE ID 860212 H20

FRACTION 04A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 02/28/86 Category

Category

VERIFIED BY LAK COMPOUNDS DETECTED 5100 INSTRUMENT ANALYST DATE EXTRACTED 03/06/86 DATE INJECTED 03/24/86 DATA FILE SCU03018C04 CONC. FACTOR 1

RESULT	I ND	1 ND	I	1 ND	I ND
COMPOUND	4-nitrophenol	2,4-dinitrophenol	2-methyl-4,6-dinitrophenol	pentachlorophenol	phenol
EPA	<b>38A</b>	39A	<b>60A</b>	64A	<b>63</b> A
NPDES SCAN	<b>4</b>	۷ n	44	♥	10A
RESULT	eno1 ND	QN	QN	Q Z	Q
COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol
EPA	21A	22A	24A	31A	34A
NPDES SCAN	11A	89 V	⊈ 4 :	∜ 235	<b>₹</b>

## SURROGATE RECOVERIES

**57A** 

**6**A

2-nitrophenol

ug/l unless otherwire specified. SCAN = scan number or retention time on chromatogram NOTES AND DEFINITIONS FOR THIS REPORT. All results reported in

K K K K K K K K K K K K K K K K K K K	7	Z	
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Analytical Serv SAMPLE 1D 860212 H20 PAGE 25 RECEIVED: 03/04/86

REPORT Results by Sample

LAB # 86-03-018 Continued From Above

FRACTION 04A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 02/28/86 Category Minimum detection Category NO = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). indicates dilution of sample if greater than one (1). BL = detected in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit. limits should be multiplied by conc.

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LAB # 86-03-018 Continued From Above	NAME Method 625 Base/Neutrals Category	benzo(ghi)perylene ND	#luorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1,2,3-cd)pyrene ND	Putene ND								
E	TEST CODE M625 B ected 02/28/86	79B	808	818	828	838	848								
REPORT Sample	FRACTION 04A TEST CODE M625 Date & Time Collected 02/28/86	88	328	448	198	378	458								
Serv REP Results by Sample	Time Co	Q	Q	QN	R	Q	Q	Q	Q			45%	52%	70%	
Analytical Serv Resu	FRACTION Date &	4-bromophenyl phenyl ether	bis(2-chloroisopropyl)ether .	bis(2-chloroethoxy)methane _	hexachlorobutadiene .	xachlorocyclopentadiene .	isophorone	naphthalene	nitrobenzene		RESULT	d5-nitrobenzene	2-fluorobiphenyl	d14-terphenyl	d10-biphenul
03/04/86	SAMPLE ID 860212 H20	41B 4-b	42B bis(	43B bis	52B	538 he	24B	55B	268	RECOVERIES	CODE	BS1	882	BS3	BS4
<i>∴</i> :	8 1										SCAN	491	749	1326	
PAGE 27 RECEIVED:	SAMPLE	148	12B	108	348	358	388	398	40B	SURROGATE	S	•	•		
SASASAS	<mark>ነ</mark> ሯንጃነቒዽ፯ጏ	3.65 <u>%</u>	<u>ን</u> ስንትን	<b></b>	a Nek					ኍ፞ዾዄጟ		4	24	0 ::::::	

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in  $\frac{10/1}{1}$  unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). = henzo(a)anthracene and chrysene comelute in high concentrations. \* # benzo(b)#luoranthene and benzo(k)#luoranthene co-elute SCAN = scan number or retention time on chromatogram.

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REPORT Results by Sample

LAB # 86-03-018 Continued From Above

SAMPLE 1D 860212 H20

FRACTION 04A TEST CODE M625 B Date & Time Collected 02/28/86

NAME Method 625 Base/Neutrals

Category

Minimum detection BL = detected in reagent blank; background subtraction not performed indicates dilution of sample if greater than one (1). B = anthracene and phenanthrene co-elute in high concentrations.J = estimated value; less then method detection limit. limits should be multiplied by conc. factor CONC. FACTOR:

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Analytical Serv REPORT Results by Sample

LAB # 86-03-018

SAMPLE ID 860212 H20

FRACTION 04A TEST CODE MS 608 Date & Time Collected 02/28/86

NAME Pesticides & PCBs by GC/MS Category

VERIFIED BY LAK COMPOUNDS DETECTED Q Ξ ANALYST DATE EXTRACTED 03/06/86 DATE INJECTED 03/24/86 DATA FILE SCU03018C04 CONC. FACTOR

COMPOUND RESULT	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND	
SCAN EPA	102P	103P	104P	103P	106P	107P	108P	109P	110P	111P	112P	113P	
T NPDES	10 t 2P		ND 1 4P	ND 1	ND 1 18P	19P	ND 1 ZOP	ND   21P	ND 1 22P	ND 1 23P	ND 1 24P	ND 1 25P	 Q
٦	물	7	7	7	-	=	-	_					===
RESULT													
COMPOUND	aldrin	dieldrin	chlordene	4, 4'-DDT	4, 4'-DDE	4, 4, -000	alpha endosulfan	beta endosulfan	endosulfan sulfate N	endrin	endrin aldehyde	heptachlor	heptachlor epoxideN
							endosulfan	endosulfan	sulfate		apń		*boxid*

BOOKE WICKER WOODER SESSION BERKEN WILLIAM ROOMS BERKEN BEEN WOODER BERKEN FOREIGN FOREIGN FOREIGN FEES

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SAMPLE 1D 860212 H20

Analytical Serv

Serv REPORT Results by Sample

FRACTION 04A TEST CODE MS 608 Date & Time Collected 02/28/86

LAB # 86-03-018 Continued From Above

NAME Pesticides & PCBs by GC/MS

Category

AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv REPORT Results by Sample

LAB # 86-03-018

SAMPLE ID 860210 Matrix Spike BNA

FRACTION 05A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

Category

DATA FILE   SCH033018C05   DATE EXTRACTED   03/24/86   INSTRUMENT	VERIFIED BY LAK 5100 COMPOUNDS DETECTED 11	COMPOUND RESULT	4-nitrophenol 12%	2,4-dinitrophenol 27%	2-methyl-4, 6-dinitrophenol 90%	pentachlorophenol 93%	phenol 81%			
DATA FILE         SCH03018C02         DATE EXTRACTED         03/24/84           DNC. FACTOR         1         DATE INJECTED         03/24/84           DES SCAN         EPA         COMPOUND         RESULT         NPDES           11A         Z3Z         21A         2,4,6-trichlorophenol         79%         7A           8A         672         22A         4-chloro-3-methylphenol         110%         5A           1A         38P         24A         2-chlorophenol         91%         7A           2A         35A         31A         2,4-dimethylphenol         68%         7A           3A         344         34A         2,4-dimethylphenol         95%         10A           6A         335         57A         2-nitrophenol         95%         10A           SCAN CODE         COMPOUND         RESULT         RESULT	LYST MENT	EPA	<b>58A</b>	39A	<b>60A</b>	646	<b>63</b>			
DATA FILE         SCH03018C02         DATE EXTRACTED         03/24/84           DNC. FACTOR         1         DATE INJECTED         03/24/84           DES SCAN         EPA         COMPOUND         RESULT         NPDES           11A         Z3Z         21A         2,4,6-trichlorophenol         79%         7A           8A         672         22A         4-chloro-3-methylphenol         110%         5A           1A         38P         24A         2-chlorophenol         91%         7A           2A         35A         31A         2,4-dimethylphenol         68%         7A           3A         344         34A         2,4-dimethylphenol         95%         10A           6A         335         57A         2-nitrophenol         95%         10A           SCAN CODE         COMPOUND         RESULT         RESULT	ANA	SCAN	889	864	947	1056	375			
DATA FILE         SCM03018C05         DATE EXTRACTED         03/06/86           DATE INJECTED         03/06/86         03/24/86           DATE INJECTED         03/24/86         <	H	PDEB	7	ď,		6	10A			
DATA FILE         SCM03018C05         DATE EDATE           NC. FACTOR         20M90UND           11A 737         21A 2, 6-trichlone           11A 389         24A 4-chloro-3-meth           2A 389         24A 2-chloro-3-meth           3A 389         24A 2-chloro-3-meth           3A 389         24A 2-chloro-3-meth           3A 389         24A 2-chloro-3-meth           3A 380         2A 280           3A 380         2A 280           3A 380         2A 280           3A 380         2A 280	03/06/86 03/24/86		7.62	110%	912	789	30%	95%		RESULT
DATA FILE <u>\$CM0301</u> NC. FACTOR <u>\$CM0301</u> DES SCAN EPA  11A <u>737</u> 21A  1A <u>389</u> 24A  1A <u>389</u> 24A  2A <u>\$59</u> 31A  3A <u>\$44</u> 34A  6A <u>\$3\$</u> 57A  SCAN CODE	DATE E DATE	COMPOUND	2, 4, 6-trichlorophenol	chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND
Z O H	TLE SCM03018C		21A	22A					RECOVERIES	I CODE
Z O H	ITA FI FACT	SCAN	737	673	386	269	244	535	GATE	SCAN
	DA CONC.	NPDES	11A	89 •	4	8 24		<b>6</b> A	SURRO	

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram.

70%

d5-phenol

799

2-fluorophenol

**AS2** 

270

AS1

374

ASB

970

AS4

86%

2, 4, 6—tribromophenol

d3-phenol

All, results reported in% Recov. unless otherwise specified

PAGE 32

Analytical Serv REMU Results by Sample

REPORT

RECEIVED: 03/04/86

Continued From Above LAB # 86-03-018

FRACTION 05A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category Category SAMPLE ID 860210 Matrix Spike BNA

NO = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed. indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. CONC. FACTOR:

limits should be multiplied by conc. factor.

Minimum detection

245

### KANDAMAN COLUMNIA

LAB # 86-03-018

REPORT

Analytical Serv

03/04/86

RECEIVED:

Results by Sample

취압

RESULT

65%

1700%

80%

32%

88%

86%

92%

85%

74%

83%

198%

83%

158%

91%

97%

NAME Method 625 Base/Neutrals VERIFIED BY COMPOUNDS DETECTED N-nitrosodiphenylamine dimethyl phthalate N-nitrosodimethylamine N-nitrosodi-n-propulamine butyl benzyl phthalate di-butyl phthalate di-n-octyl phthalate diethyl phthalate benzo(a)pyrene acenaphthylene bis (2-ethylhexyl)phthalate benzo(a)anthracene anthracene benzo(k)fluoranthene chrysene benzo(b)fluoranthene Category COMPOUND 5100 Date & Time Collected not specified TEST CODE M625 B EPA 61B 62B **63B** 66B **67B 69**B 70B 71B **72B 73B 74B** 75B **76B** 77B 788 ANALYBT INSTRUMENT **68B** NPDES SCAN 150 1412 1496 952 471 1520 1179 1641 926 817 1489 1736 1682 824 1084 78 1677 29B 15B 26B 188 38 **8** 418 13B **99** 43B 42B 24B 25B 90 28 DATE EXTRACTED 03/06/86 DATE INJECTED 03/24/86 RESULT FRACTION 05A 70% 윋 767 82% 95% **B0**% 102% 84% 윋 87% 817 月 89% 82% 79% 77% acenaph thene 40B 4-chlorophenyl phenyl ether 1, 2, 4-trichlorobenzene hexachloroethane bis(2-chloroethyl)ether 1, 2-dichlorobenzene 1, 4-dichlorobenzene 2,6-dinitrotoluene benzidine hexach lorobenzene 2-chloronaphthalene 1, 3-dichlorobenzene 3, 3'dichlorobenzidine 2, 4-dinitrotoluene 1,2-diphenylhydrazine fluoranthene SAMPLE ID 860210 Matrix Spike BNA COMPOUND DATA FILE SCM03018C05 37B EPA 18 38 88 12B 18B 20B 25B **26B** 27B 28B 358 36B 39B **9B** 933 NPDES SCAN 853 478 413 825 579 102B 393 437 835 31B 1263 407 761 17B 13 46B 338 36B 11B 22B 27B 28B 16B 20B 218 **4B 23B** CONC 246 4

VIVIL SERVIJ 16659AT 1/2/2/AT 2/2/2/AT EKKKRY EKKKKY KKKKKT DE KOOMT BERZE KKKKAT DE K

## KADIAN Corporation

62%

LAB # 86-03-018 Continued From Above

Serv REPORT Results by Sample

Analytical Serv

PAGE 34 RECEIVED: 03/04/86 88%

88%

43%

17%

83%

NAME Method 625 Base/Neutr	benzo(ghi)perylene	fluorene	phenanthrene B	dibenzo(a, h)anthracene	indeno(1,2,3-cd)pyrene	pyrene										, 10/26/84).
M625 B specifie	798	808	818	82B dib	B3B ind	848										ified. (Federal Register, elute. concentrations.
TEST CODE M625 B Nilected not specified	88 2088	32B 430	44B 1077	19B 2026	37B <u>2011</u>	45B 1297										20.00 20.00 0.00 1.00 1.00
FRACTION OSA TEST CODE Date & Time Collected not	enyl ether 108%	pyllether 56%	U)methane 76%	butadiene 94%	entadiene 10%	sophorone 83%	phthalene 81%	trobenzene 63%			trobenzene 70	2-fluorobiphenyl 68	-terphenyl 60	0-biphenyl	ORT.	time on unless o ion limit nzo(k)flu sene co-e
SAMPLE ID 860210 Matrix Spike BNA	4-bromophenyl phe	bis(2-chloroisopropyl)ether	bis(2-chloroethoxy)methane	hexachlorobutadiene	hexachlorocyclop	<del>úl</del>	Ē	nit	IES	RESULT	duni	2-4100	d14	d1(	ANO DEFINITIONS FOR THIS REP	number or retent reported in <u>% Rec</u> tected at EPA dat tuoranthene and anthracene and c
860210	Z 41B	42B	2 43B	5 52B	828 1	2 34B	258	2 56B	SURROGATE RECOVERIES	SCAN CODE	_ BS1	B85	BS3	BS4	DEFINIT	SCAN # scan All results ND # not de  * # benzo(b) A # benzo(a)
8	<b>1007</b>	424	336	616	724	322	587	490	ATE	BCAN	487	749	1327			SCAN A SIL TAN IN THE
SAMPLI	148	128	108	348	358	88E 4	86E 2	\$ 47	SURRO						NOTES	

PERSONAL PROPERTY PRO

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Analytical Serv REPORT Results by Sample SAMPLE ID 860210 Matrix Spike BNA

FRACTION OSA TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category

LAB # 86-03-018 Continued From Above

Category

BL = detected in reagent blank; background subtraction not performed $extbf{B}$  = anthracene and phenanthrene co-elute in high concentrations.

indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. CONC. FACTOR: indicates dilution of limits should be multiplied by conc.

fac tor

Minimum detection

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Analytical Serv

REPORT

Results by Sample

LAB # 86-03-018

SAMPLE ID 860211 Duplicate Analysis

FRACTION 05B TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

TOO COMPOUNDS DETECTED O	COMPOUND	4-nitrophenol ND	2, 4-dinitrophenol ND	2-methyl-4,6-dinitrophenol ND	pentachlorophenol ND	phenol ND	
ANAL YST TRUMENT	EPA	<b>58A</b>	39A	<b>60A</b>	64A	<b>63A</b>	
ANALYST INSTRUMENT	SCAN						
-	NPDES SCAN	4	Q.	4	4	104	
<u>03/06/86</u> <u>03/24/86</u>	RESULT	QN	QN	QN	QN	QN	Q
DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol
DATA FILE <u>9CD03018C05</u> CONC. FACTOR 1		4	4-ch1		••		
E 2000	EPA	21A	22A	24A	31A	344	\$7A
FACTO	SCAN						
DA.	NPDES	114	₩	4	N N	e A	<b>6</b>
	<u> </u>		<u> </u>	ر <u>د کارک</u>	1 2	49	) 33333

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram All results reported in

2

d5-phenol\_

RESULT

COMPOUND

SURROGATE RECOVERIES

SCAN CODE

영

2-fluorophenol

2, 4, 6—tribromophenol

AS3

971

AS4

**AS2** 

270

AS1

375

d3-phenol

RECEIVED: 03/04/86

Analytical Serv REPORT Results by Sample

LAB # 86-03-018 Continued From Above

SAMPLE ID 860211 Duplicate Analysis

Category

FRACTION 05B TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

NO  $^{lpha}$  not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL  $^{\mathrm{H}}$  detected in reagent blank; background subtraction not performed

CONC. FACTOR: indicates dilution of sample if greater than one (1). U = estimated value; less than method detection limit. limits should be multiplied by conc. factor.

Minimum detection

250

SKKIT KKKKKIT KNSSSSI DESERBET DIDIZIKT KKKKKKT LIGIKKKT BEDDIZET BEKKSIT BESSSSST BESSSSS TERRIORI



PAGE 38 RECEIVED: 03/04/86

REPORT Results by Sample Analytical Serv

LAB # 86-03-018

FRACTION 05B SAMPLE ID 860211 Duplicate Analysis

NAME Method 625 Base/Neutrals Date & Time Collected not specified TEST CODE M625 B

LAK A 9 뒫 月 2 旦 2 月 月 g 月 2 S 윋 月 윋 윋 RESULT COMPOUNDS DETECTED VERIFIED BY N-nitrosodimethylamine N-nitrosodiphenylamine N-nitrosodi-n-propylamine butyl benzyl phthalate di-butyl phthalate dimethyl phthalate benzo(a)pyrene bis(2-ethylhexyl)phthalate di-n-octyl phthalate diethyl phthalate acenaphthylene benzo(a)anthracene benzo(b)fluoranthene benzo(k)fluoranthene chrysene anthracene Category COMPOUND 핅 5100 **63B** 66B INSTRUMENT EPA 61B 62B **67B 68B 869 70B** 71B **72B** 73B **74B** 75B **76B 77B** 788 NPDES SCAN 43B 13B 41B 42B 15B **26B** 29B **24B** 25B 188 **6B** 78 98 **2B** 38 DATE EXTRACTED 03/06/86 DATE INJECTED 03/24/86 RESULT 윋 윋 윋 S 뮏 2 뮏 2 윋 9 2 윋 윋 Ž 月 acenaph thene 1, 2, 4-trichlorobenzene 2,6-dinitrotoluene benzidine hexachlorobenzene hexachloroethane bis(2-chloroethyl)ether 2-chloronaphthalene 1,2-dichlorobenzene 1, 3-dichlorobenzene 1, 4-dichlorobenzene 3, 3'dichlorobenzidine 2, 4-dinitrotoluene 1,2-diphenylhydrazine 40B 4-chlorophenyl phenyl ether fluoranthene COMPOUND DATA FILE SCD03081C05 CONC. FACTOR 1 EPA 18 38 88 12B 18B 20B 25B **26B 27B** 28B 358 36B 37B 39B 86 NPDES SCAN 251 48 46B **33B** 36B 1 1B 21B 22B 23B 278 **28B** 29B 31B 178 4

LAB # 86-03-018 Continued From Above

Serv REPORT Results by Sample

Analytical Serv

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rais	ΩN	Q	QN	QN	QN	QN								
NAME Method 625 Base/Neutrals ed Category	benzo(ghi)perylene	fluorene	phenanthrene B	dibenzo(a, h)anthracene	indeno(1, 2, 3-cd)pyrene	ecetigo								
TEST CODE M625 B Nected not specified	79B	808	818	828	838	848								
CODE														
TEST lected	88	32B	44B	198	378	45B								
FRACTION OSB TEST CODE Date & Time Collected not	Q	Q.	Q	Q	QN	Q	QN	QN			34	26	74	
FRACTI Date &	• ther	• ther	thane	diene	diene	01010	alene	9 L 8 L B			enzene	phenyl	phenyl	phenyl
SAMPLE ID 860211 Duplicate Analysis	4-bromophenyl phenyl	bis(2-chloroisopropyl)	bis(2-chloroethoxy)me	hexachlorobuta	hexachlorocyclopentadiene	isoph	naphth	nitrobe	RIES	RESULT	d5-nitrob	2-fluorobi	d14-ter	d10-bi
360211	41B	42B	43B	52B	33B	348	55B	36B	RECOVE	SCAN CODE	BS1	BSS	BS3	<b>BS4</b>
									ATE R	SCAN	493	750	1327	
SAMPLE	14B	12B	10B	348	33B	388	39B	40B	SURROGATE RECOVERIES	<b>-,</b>	4	25		

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in uq/l unless otherwise specified. NO = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). = benzo(a)anthracene and chrysene co-elute in high concentrations.  $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram.

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Analytical Serv

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REPORT Results by Sample

LAB # 86-03-018 Continued From Above

Category B = anthracene and phenanthrene co-elute in high concentrations.

indicates dilution of sample if greater than one (1).

limits should be multiplied by conc. factor.

CONC. FACTOR:

Minimum detection

FRACTION OSB TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category detected in reagent blank, background subtraction not performed. J = estimated value; less than method detection limit. SAMPLE 1D 860211 Duplicate Analysis

253

TOWARD SOUND TO SOUND TOWARD SOUND TOWARD SOUND TO SOUND TOWARD.

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REPORT Results by Sample Analytical Serv

LAB # 86-03-018

SAMPLE ID 860211 Duplicate Analysis

NAME Pesticides & PCBs by GC/MS FRACTION 05B TEST CODE MS 608 N Date & Time Collected not specified

Category

N N REBULT 月 2 뮏 S 9 月 밀 月 月 물 2 뮏 VERIFIED BY COMPOUNDS DETECTED PCB-1232 PCB-1248 alpha BHC beta BHC gamma BHC delta BHC PCB-1242 PCB-1254 PCB-1260 PCB-1016 PCB-1221 toxaphene COMPOUND 핅 EPA 109P ANALYBT 102P 103P 104P 105P 106P 107P 108P 110P 111P 112P 113P NPDES SCAN 21P 19P 20P 22P **24P** 25P ğ 4 P. 18P 235 g DATE EXTRACTED 03/06/86 DATE INJECTED 03/24/86 RESULT 물 뎔 P 윋 月 2 뮏 윋 月 뒫 윋 뒫 aldrin dieldrin 4, 4'-DDD 4, 4'-DDE alpha endosulfan beta endosulfan 4, 4'-DDT endrin heptachlor epoxide chlordane endosulfan sulfate endrin aldehyde heptachlor COMPOUND DATA FILE SCD03018C05 CONC. FACTOR EPA **97**6 **89P** 90P 91P 92P 93P 94P 936 96P **98**6 **466** 101P 100P NPDES SCAN 11P 16P 17P 4 10P 9 126 146 14P 1 3P 254

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Analytical Serv

REPORT Results by Sample

LAB # 86-03-018

Continued From Above

SAMPLE ID 860211 Duplicate Analysis

FRACTION 05B TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN \* scan number on chromatogram.

NO = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

Results by Sample Analytical Serv SAMPLE ID Reagent Blank BNA RECEIVED: 03/04/86 PAGE 43

FRACTION 05C TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category LAB # 86-03-018 REPORT

VERIFIED BY LAK	COMPOUNDS DETECTED Q
ANALYST	INSTRUMENT £2
DATE EXTRACTED <u>03/05/86</u>	DATE INJECTED 03/19/86
DATA FILE 20803016015	CONC. FACTOR 1

	•	-	-	-	•	
COMPOUND	4-nitrophenal	2, 4-dinitrophenol	2-methyl-4, 6-dinitrophenal	pentachlorophenol	phenol	
EPA	58A	<b>39A</b>	<b>60</b> A	64A	<b>63A</b>	
RESULT NPDES SCAN	<b>4</b>	ď.	<b>4</b>	<b>6</b>	10A	
RESULT	Q	QN	QN	Q	QN	Q
COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2, 4-dimethylphenol	2-nitrophenol
EPA	21A	22A	24A	31A	34A	57A
SCAN						
NPDES SCAN	114	<b>8</b>	<u>4</u>	δ 2	չ 856	<b>6</b>

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REBULT

2

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月

Q

d5-phenol 2-fluorophenol\_ 2, 4, 6-tribromophenol d3-phenol COMPOUND ASS AS3 AS4 AS1 SCAN CODE 471 1116 353

87%

RESULT

SURROGATE RECOVERIES

709

ug/1 unless otherwise specified SCAN = scan number or retention time on chromatogram. NOTES AND DEFINITIONS FOR THIS REPORT. All results reported in

POSSESSES STREETS STREETS STREETS STREETS MOSSESSES BOOKERS DISCOURS BOOKERS BOOKERS BOOKERS BOOKERS

SAMPLE ID Reagent Blank BNA

PAGE 44

RECEIVED: 03/04/86

RECEIVED: 03/04/86

FRACTION OSC TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

ND = not dete-ted at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank; background subtraction not performed

indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc. CONC. FACTOR:

factor

Minimum detection

	LAB # 86-03-018	M625 B NAME Method 625 Base/Neutrals specified Category	VERIFIED BY LAK  F2 COMPOUNDS DETECTED 1	COMPOUND	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate ND	butyl benzyl phthalate ND	di-butyl phthalate 3	di-n-octyl phthalate ND	disthyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A ND	Denzo(a)purene	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A ND	acenaphthylene ND	anthracene B ND
	TAC		ANALYST INSTRUMENT	SCAN EPA	618	62B	<b>63B</b>	66B	<b>67</b> B	132B 68B	<b>69</b> B	70B	71B	72B	738	748	758	768	778	788
	REPORT   Sample	Collected not		NPDES SC	418	43B	428	138	158	ST 892	298	24B	238	28	<b>89</b>	78	98	188	23 23	86
	Serv Results by	FRACTION <u>05C</u> Date & Time Co	03/05/86 03/19/86	RESULT	QN	QV	QN	QN	QN	QN	QN	Q	Q	Q	QN	QN	Q	ΩN	N	QN
NO LAW MO d	Analytical	SAMPLE ID Reagent Blank BNA FRACTI	2CB03016C18 DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1, 3-dichlorobenzene	1, 4-dichlorobenzene	3, 3'dichlorobenzidine	2, 4-dinitrotoluene	2, 6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	4-chlorophenyl phenyl ether
	03/04/86	Reagent		N EPA	18	28	88	98	128	188	208	25B	26B	278	288	338	36B	378	39B	40B
	PAGE 45 RECEIVED:	SAMPLE ID	DATA FILE CONC. FACTOR	NPDES SCAN	18	48	46B	338	368	811	891 2	នឹ 258	218	22B	238	27B	28B	29B	318	178

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NOTA VIOLENCE DE LA COMPANION		CHORESON.

LAB # 86-03-018 Continued From Above

REPORT

Analytical Serv

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Results by Sample

NAME Method 625 Base/Neutrals d Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a, h)anthracene ND	indeno(1,2,3-cd)pyrene ND	purene								
M625 B specifie	798	808	818	82B dib	838 ind	848								
	88 88	328	44B	198	378	45B								
SAMPLE ID Reagent Blank BNA FRACTION 05C TEST Date & Time Collected	4-bromophenyl phenyl ether ND	bis(2-chloroisopropyl)ether ND	bis(2-chloroethoxy)methane ND	hexachlorobutadiene ND	hexachlorocyclopentadiene ND	1 sophorone ND	naphthalene ND	nitrobenzene ND 1	IE^	RESULT	d5-nitrobenzene 92	2-fluorobiphenyl84	d14-terphenyl68	d10-biphenyl
Reagent	418	42B b	438	32B	<b>33B</b>	348	55B	26B	RECOVER	SCAN CODE	3 BS1	3 BS2	ES8 7	8 4
SAMPLE ID	148	128	108	348	328	388	398	408	SURRDGATE RECOVERIES	SCA	E09 4	25	9 1487	

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in uq/l unless otherwise specified. NO = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). A = henzo(a)anthracene and chrysene co-elute in high concentrations \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute SCAN = scan number or retention time on chromatogram.

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SAMPLE ID Reagent Blank BNA

Analytical Serv

Serv REPORT Results by Sample

LAB # 86-03-018 Continued From Above

FRACTION OSC TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category BL = detected in reagent blank; background subtraction not performed B = anthracene and phenanthrene co-elute in high concentrations.

J = estimated value: less than method detection limit.

indicates dilution of sample if greater than one (1).

limits should be multiplied by conc.

Minimum detection

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<b></b>	PAGE 48 RECEIVED: 03	03/04/86	Analytical Serv Reso	erv REP esults by Sample	REPORT Sample		LAB # 86-03-018	œ	CCARCACA
	SAMPLE ID RE	SAMPLE ID Reagent Blank BNA	FRACT	ION OSC & Time Col	N 05C TEST CODE Time Collected not	MS 608 specifie	NAME Pesticides & PCBs by GC/MS	PCBs by GC	S
	DATA FILE CONC. FACTOR	DATA FILE <u>SCB03016C18</u> K. FACTDR	DATE EXTRACTED DATE INJECTED	<u>03/05/86</u> 03/19/86	ANA	ANAL YST	VERIFIED BY COMPOUNDS DETECTED		A O
	NPDES SCAN	EPA C	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND	REBULT	
	4	89P	aldrin	QN	9	102P	elphe	ВНС	CZ Z
	10P	90P	dieldrin	QN	e e	103P	beta	ВНС	QN QN
	<b>6</b> P	916	chlordane	Q	4	104P		ВНС	Q
	7.6	92P	4, 4'-DDT	Q	g.	105P	delta	ВНС	QN ON
4	& 4	93P	4, 4'-DDE	Q	18P	106P	PCB	PCB-1242	Q Q
4	2			•					,

	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND		
1501	104P	105P	106P	107P	108P	109P	110P	1116	112P	113P		
, ק	46	e G	18P	198	20P	21P	22P	23P	24P	23P		
	QN	QN	Q	QN	QN	Q	QN	QN	QN	QN	QV	
	chlordane.	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor _	heptachlor epoxide .	
È	91P	92P	93P	946	9.5P	496	97P	486	466	100P	101P	
5	<b>6P</b>	7P	a 6	<b>.</b> •	11P	12P	14P	14P	13P	16P	17P	
			4 :	561	L							

P.) Service processes (processes) recovered recovered (processes)

PAGE 49 RECEIVED: 03/04/86

Analytical Serv REPORT Results by Sample

LAB # 86-03-018 Continued From Above

SAMPLE ID Reagent Blank BNA

FRACTION OSC TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

NO = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

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REPORT Results by Sample Analytical Serv

LAB # 86-03-018

SAMPLE ID Method Spike BNA

FRACTION <u>06A</u> TEST CODE <u>M625 A NAME Method 625 Acid Compounds</u> Date & Time Collected <u>not specified</u> Category

Category

WJL VERIFIED BY LAK 3100 COMPOUNDS DETECTED 11	COMPOUND	4-nitrophenol 79	2,4-dinitrophenol 39	2-methyl-4,6-dinitrophenol 90	pentachlorophenol 99	phenol 62			
ANALYST TRUMENT	EPA	58A	<b>39A</b>	<b>60</b> A	64A	<b>63</b> A			
ANALYST INSTRUMENT	SCAN	828	841	924	0501	361			
Ħ	NPDES SCAN	4	A A	4	9.A	10A			
<u>03/10/86</u> 03/27/86	RESULT N	100	90	73	95	49	7.6		RESULT
DATE EXTRACTED G	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND
DATA FILE <u>SCM03052C03</u> IC. FACTOR	NO O	2, 4, 6-	4-chloro		4,9	4,5		ES	COM
2CMOS	EPA	21A	22A	24A	314	34A	57A	SURROGATE RECOVERIES	CODE
A FILE FACTOR	SCAN	11A Z1Z	929	1A 374	251	327	6A 516	ATE RI	SCAN CODE
DAT CONC.	NPDES SCAN	114	8A A	₹ 4	8 8	ξ 63	<b>6A</b>	SURRDG	
evene.	~~ \%\%\	<sub>የኤ</sub> ኖ-ላቸ	SONO.	مين زران س	ا ک اروزون	GUAN GUAN	gerran	urce.	enen.

NOTES AND DEFINITIONS FOR THIS REPORT.

% unless otherwime specified. BCAN = scan number or retention time on chromatogram All results reported in

R

2-fluorophenol

2

d5-phenol

44

2, 4, 6-tribromophenol

AS3

946

**AS4** 

**AS2** 

258

**AS1** 

360

d3-phenol

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Analytical Serv

REPORT Results by Sample

LAB # 86-03-018 Continued From Above

NAME Method 625 Acid Compounds Category FRACTION OGA TEST CODE M625 A N/ Date & Time Collected not specified SAMPLE ID Method Spike BNA

ND = not detected at EPA detection limit method 625, (Federal Register,

indicates dilution of sample if greater than one (1). U = estimated value; less than method detection limit.

factor.

limits should be multiplied by conc.

Minimum detection

11/26/84)

BL = detected in reagent blank; background subtraction not performed.

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RECEIVED: 03/04/86

Analytical Serv

Serv REPORT RESULTS by Sample

LAB # 86-03-018

TEST CODE M625 B FRACTION 06A SAMPLE ID Method Spike BNA

AA 45 25 8 84 RESULT 101 94 7 NAME Method 625 Base/Neutrals VERIFIED BY COMPOUNDS DETECTED N-nitrosodimethylamine N-nitrosodiphenylamine N-nitrosodi-n-propylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate di-butyl phthalate di-n-octyl phthalate diethyl phthalate dimethyl phthalate benzo(a)pyrene acenaphthylene anthracene benzo(a)anthracene chrysene benzo(b)fluoranthene benzo(k)fluoranthene Category COMPOUND 5100 Date & Time Collected not specified ANALYST INSTRUMENT 66B EPA **63B** 61B 62B 67B **688 69**B 70B 71B 72B **73B** 74B 75B 76B 77B **78B** 1058 1477 796 NPDES SCAN 153 929 455 136B 1381 1153 904 1454 1661 1615 1619 18B 1460 803 13B **6**B 78 8 158 26B 29B 9B 25B 41B 42B 24B 80 43B 2B DATE EXTRACTED 03/10/86 DATE INJECTED 03/27/86 RESULT 116 91 2 83 엵 84 9 125 27 3 89 98 7 Z acenaph thene 2-chloronaphthalene 40B 4-chlorophenyl phenyl ether benzidine 1, 2, 4-trichlorobenzene hexachlorobenzene bis (2-chloroethyl)ether 1, 2-dichlorobenzene 1, 3-dichlorobenzene 1, 4-dichlorobenzene 2, 4-dinitrotoluene 1, 2-diphenylhydrazine hexachloroethane 3, 3'dichlorobenzidine 2,6-dinitrotoluene fluoranthene COMPOUND DATA FILE SCM03052005 CONC. FACTOR EPA 37B 13 38 88 98 12B 188 20B 25B 268 278 **28B** 358 36B 39B 910 NPDES SCAN 362 462 369 422 332 398 863 804 1234 1434 831 741 33B 1003 31B 46B 1 B 36B 11B 16B 21B 22B **23B 27B** 28B 178 20B **29B** 4B 265

KKKKKK THEFTHE BESKERK KKKKKK BEFFERE IMMANNE KK

THE THEORY SECTION SECTIONS

LAB # 86-03-018 Continued From Above

Analytical Serv REPORT Results by Sample

PAGE 53 RECEIVED: 03/04/86

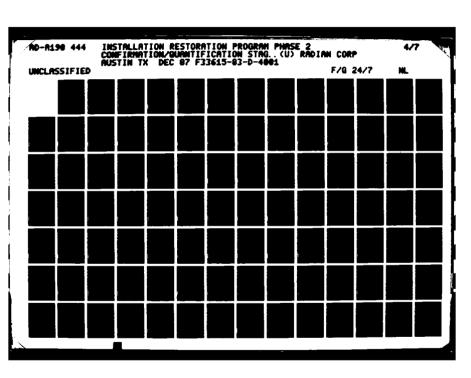
NAME Method 625 Base/Neutrals	benzo(ghi)perylene 90	fluorene 83	phenanthrene B 89	dibenzo(a,h)anthracene 97	indeno(1,2,3-cd)pyrene 97	pyrene 70								
TEST CODE M625 B NA ected not specified	79B	80B	81B	82B d	83B 1	848								
DE M														
ST CE	1918	206 8	1021	1865	1863	1267								
TE:	88	32B	<b>44</b> B	198	37B	43B								
SAMPLE ID Method Spike BNA FRACTION OGA TEST CODE Date & Time Collected not	4-bromophenyl phenyl ether 107 i	bis(2-chloroisopropyl)ether 61	bis(2-chloroethoxy)methane 77 i	hexachlorobutadiene 102 f	hexachlorocyclopentadiene 102	isophorone 79	naphthalene 76	nitrobenzene 72	RES	RESULT	d5-nitrobenzene79	2-fluorobiphenyl73	d14-terphenyl 44	d10-biphenul
ethod	418	42B b	438	528	<b>23</b> B	34B	33B	26B	COVER	CODE	BS1	BS2	<b>BS3</b>	<b>B</b> S <b>4</b>
	793	439	939		399	202	369	473	TE RE	SCAN CODE	470	729	1297	
SAMPLE	148	128	108	34B	358	388	398	40B	SURROGATE RECOVERIES	ن 4	'	66	-4	

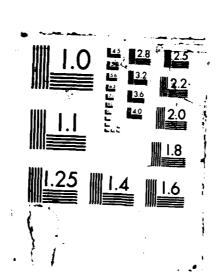
AND DEFINITIONS FOR THIS REPORT.

unless otherwise specified. scen number or retention time on chromatogram. reported in\_

detected at EPA detection limit method 625, (Federal Register, 10/26/84). bifluoranthene and benzo(k)fluoranthene co-elute.

enthrecene and chrysene co-elute in high concentrations.





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Analytical Serv

REPORT Results by Sample

LAB # 86-03-018 Continued From Above

SAMPLE ID Method Spike BNA

Minimum detection

FRACTION <u>06A</u> TEST CODE <u>M625 B</u> NAME Method 625 Base/Neutrals Date & Time Collected not specified Category  $\mathsf{BL}$  = detected in reagent blank; background subtraction not performed B = anthracene and phenanthrene co-elute in high concentrations. U = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1).

factor.

limits should be multiplied by conc.

CONC. FACTOR:

RECEIVED: 03/04/86

Serv REPORT 09/08/86 11: 54: 22 Analytical Serv

LAB # 86-03-021

REPORT Radian Corporation Austin, Texas Larru French

ATTEN

SAMPLES FACILITY OFHL Plant 4, Bldg 4 General Dunamics Austin, Texas PLANT 4 **CLIENT** COMPANY

Plant 4

2/28/86 and 3-1-86 Fed Ex 736746446 212-027-27-40 HZO and Soil 7678 TYPE TRANS WORK ID TAKEN

(512) 454-4797 PHONE ATTEN

PREPARED Radian Analutical Services Austin, Texas 78766 8501 MoPac Blvd. P. O. Box 9948

CONTACT ERENCH

CERTIFIED BY

Duplicate of report of 04/11/86.

Footnotes and Comments

· Indicates a value less than 5 times the detection limit. potential error for such low values ranges between

50 and 100%.

specific matrix was not within acceptable limits indicating e Indicates that spike recovery for this analysis on the an interferent present.

SAMPLE IDENTIFICATION

269

4

Reagent Blank 860215 H20 B60213 H20 860214 H20 860216 H20 488888888

86002\$ HZo VOA Soil Reagent Blank VOA 860026 VOA Soil

SOUDDIN KEESSEEL PRIVING INDIFFE FEBRUAL WINDSELE BEESSEEL FEBRUAL FEB

Reserved 133355

Analytical Serv TEST CODES and NAMES used on this report EX 625 Extraction only - 625 BN/A IFB VS VOA Screen by IFB method Pesticides & PCBs by GC/MS Method 625 Acid Compounds Method 625 Base/Neutrals GCMS Volatiles - SW846 MS 608 SWB240 M625 A M625 B

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	7 4 7
<u> </u>	202201
	2 2 2

7 A O O	CORPORATION	•			,	
PAGE 2 RECEIVED: 03/04/86	Analytical	tical Serv RESULTS BY TEST	REPORT Test	LAB # 86-03-021	-021	
TEST CODE	Sample Ol	Sample 02 (entered units)	Sample 03	Sample 02 Sample 03 Sample 04 Sample 05 (entered units) (entered units)	Sample 05 (entered units)	_
EX_625 date complete	03/02/86	03/02/86	03/02/86	03/05/86	03/05/86	
TEST CODE	Sample 06 Sample 07 (entered units)	Sample 07				
IFB VS	03/06/86	03/06/86			- www v-	

Analytical Serv

Serv REPORT Results by Sample

LAB # 86-03-021

RECEIVED: 03/04/86

SAMPLE ID 860213 HZD

FRACTION OIA TEST CODE M625 A
Date & Time Collected 03/01/86

NAME Method 625 Acid Compounds Category

> DATE EXTRACTED 03/05/86 DATE INJECTED 03/24/86 DATA FILE SCU03021C01 CONC. FACTOR

DATE INJECTED

**ANALYST** INSTRUMENT

5100

EPA	<b>28A</b>	<b>39A</b>
SCAN		
NPDES	74	S. A.
RESULT NPDES SCAN EPA	AZ i DN	Q
COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol
EPA	21A	22A
NPDES SCAN	114	BA

PA <u>₩</u>

4-nitrophenol COMPOUND

윋

RESULT

S

2,4-dinitrophenol

웃

2-methyl-4, 6-dinitrophenol

₩09

\$

2

64A

46

Q

**63A** 

10A

문

2, 4-dimethylphenol

9

2-nitrophenol

旲

pentach lorophenol

9

phenol

2-chlorophenol 2, 4-dichlorophenol **24A 31A** ZYY 19 11 71 2 4

**57A** 

34A

S A

SURROGATE RECOVERIES

45-phenol COMPOUND AS1 SCAN CODE 375

65

2-fluorophenol

RESULT

2, 4, 6-tribramophenol AS3 971

**AS2** 

270

NOTES

AS4

ug/1 unless otherwise specified. SCAN = scan number or retention time on chromatogram AND DEFINITIONS FOR THIS REPORT. All results reported in

43-phenol

VERIFIED BY LAK COMPOUNDS DETECTED

<u> VATORIORIA TEGGERAL VICEICAL PROPORT PERPERT NORIONE ESPERAT ISSUEDAL ESPERAT ESPERATE</u>

PAGE 4 RECEIVED: 03/04/86

SAMPLE ID 860213 H20

Results by Sample Analytical Serv

REPORT

Continued From Above LAB # 86-03-021

NAME Method 625 Acid Compounds Category FRACTION OIA TEST CODE M625 A
Date & Time Collected 03/01/86

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

Minimum detection CONC. FACTOR: indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc. factor.

GO Modeles	<b>800000</b>				\$5522200 \$5522200			
inininini	PAGE 5 Received:	03/04/86	98	Analytical Se Re	Serv Results by Sample	REPORT Sample		
00000000000000000000000000000000000000	SAMPLE ID 860213 HZO	860213		FRACTIC Date &	<b>_</b>	1 01A TEST CODE M625 Time Collected 03/01/86	M625 101/86	B NAME Method 625 Base/Neutrals Category
	DATA FILE CONC. FACTOR		5CV03021C01	DATE EXTRACTED DATE INJECTED	03/05/86 03/24/86	INS	ANALYST TRUMENT	WJL VERIFIED BY LAK 5100 COMPDUNDS DETECTED 0
	NPDES SCAN	K EPA	00	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND RESULT
ار ۱۰ و ۱۰	18	18		acenaph thene	QN .	418	618	N-nitrosodimethylamine ND
د <sub>م</sub> در د	48	90		benzidine	Q	438	62B	N-nitrosodiphenylamine ND
والوالوا	46B	88	1, 2, 4-	4-trichlorobenzene	Q.	828	<b>8</b> 29	N-nitrosodi-n-propylamine ND
	338	98	£	nexach lorobenzene	2	138	899	bis(2-ethylhexyl)phthalate ND
ئروار ئولاران	368	128		hexachloroethane	9	158	67B	butyl benzyl phthalate ND
	g: 4	188	bis(2-c	bis(2-chloroethyl)ether	Q	<b>26B</b>	<b>889</b>	di-butyl phthalate ND
	891 2'	208	2-0	2-chloronaphthalene	ğ	298	<b>69B</b>	di-n-octyl phthalate ND
	දී 73	238		1, 2-dichlorobenzene	g	248	70B	diethyl phthalate ND
ر∿ر ئار	218	26B	1,3	3-dichlorobenzene	Q	258	718	dimethyl phthalate ND
ربعوب	228	27B	1.4	, 4-dichlorobenzene	Q	38	72B	benzo(a)anthracene A ND
\\.\	238	<b>28B</b>	3, 3, 4	3'dichlorobenzidine	QN	<b>6B</b>	738	benzo(a)purene
	27B	338	ù	2, 4-dinitrotoluene	Q	78	748	benzo(b) fluoranthene * ND
	28B	36B	તે	2, 6-dinitrotoluene	9	<b>9</b> B	758	benzo(k)fluoranthene * ND
www.	29B	37B	1, 2-4	1,2-diphenylhydrazine	SZ.	188	<b>16B</b>	chrysene A ND
~\.\.	318	398		fluoranthene	Ž	28	77B	acenaphthylene ND
	178	40B	4-chlorophenyl	ingl phenyl ether	Q	38	78 <b>B</b>	anthracene B ND
- ,					•			

LAB # 86-03-021 Continued From Above

Serv REPORT Results by Sample

Analytical Serv

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NAME Method 625 Base/Neutrals Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a, h) anthracene ND	indeno(1,2,3-cd)pyrene ND	ON susand							
TEST CODE M625 B ected 03/01/86	798	808	818	828	838	848							
TEST	88	328	448	19B	37B	45B							
FRACTION OIA TEST CODE M625 Date & Time Collected 03/01/86	QN L	QN L	QU.	Q ·	QV .	QN	QN e	QN .			ne 39	141 36	1y1 53
	4-bromophenyl phenyl ether	bis(2-chloroisopropyl)ether	bis(2-chloroethoxy)methane	hexachlorobutadiene	hexachlorocyclopentadiene	isophorone	naphthalene	nitrobenzene	RIES	RESULT	d5-nitrobenzene	2-fluorobiphenyl	d14—terphenyl
SAMPLE ID <u>860213 H20</u>	418	428	43B	22B	338	34B	338	26B	SURROGATE RECOVERIES	SCAN CODE	BS1	<b>BS2</b>	<b>B</b> 83
9									ATE	SCAN	493	730	1328
SAMPLE	148	12B	108	348	328	388	398	40B	SURROG		4	274	1

NOTES AND DEFINITIONS FOR THIS REPORT.

d10-biphenyl

854

All results reported in uq/l unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). # = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute SCAN \* scan number or retention time on chromatogram.

benzo(a)anthracene and chrysene co-elute in high concentrations.

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SAMPLE 1D 860213 H20

Serv REPORT Results by Sample

Analytical Serv

LAB # 86-03-021 Continued From Above

FRACTION OIA TEST CODE M625 B Date & Time Collected 03/01/86

NAME Method 625 Base/Neutrals

Category

Minimum detection

BL=detected in reagent blank; background subtraction not performed. m B = anthracene and phenanthrene co-elute in high concentrations. J = estimated value: less than method detection limit. indicates dilution of sample if greater than one (1).

fac tor.

limits should be multiplied by conc.

CONC. FACTOR:

275

3021C01 DATE EXTRACTED 03/05/86 ANALYST WJL COMPOUNDS DETECT	
CONC. FACTOR	

	LAB # 86-03-021	NAME Pesticides & PCBs by GC/MS Category	VERIFIED BY LAK COMPOUNDS DETECTED Q	COMPOUND	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene	
essessa mercesses	REPORT Sample	TEST CODE MS 608 ected 03/01/86	ANALYST	NPDES SCAN EPA	2P 102P	3P 103P	4P 104P	5P 105P	18P 106P	19Р 107Р	20P 10BP	21P 109P	22P 110P	23P 111P	24P 112P	25P 113P	
Newsons and the second second	Analytical Serv Results by Sa	FRACTION O1A TEST CODE MS 60 Date & Time Collected 03/01/86	DATE EXTRACTED <u>03/05/86</u> DATE INJECTED <u>03/24/86</u>	COMPOUND RESULT NPD	aldrin ND	dieldrin ND	chlordane ND	4, 4'-DDT ND	4, 4'-DDE ND 1 1	4, 4'-DDD ND i 1	alpha endosulfan <u>ND</u> i 2	beta endosulfan ND i 2	endosulfan sulfate ND 1 2	endrin ND i 2	endrin aldehyde ND ( 2	heptachlor ND : 2	heptachlor epoxide ND :
MWAKAMAN MWAKAMAN MWAKAMAN	PAGE 8 RECEIVED: 03/04/86	SAMPLE ID 860213 H20	DATA FILE <u>SCU03021C01</u>	NPDES SCAN EPA COM	1P 89P	10P 90P	6P 91P	dZ6 dL 4	48 2°	76	11P 95P a	12P 96P	14P 97P end	14P 98P	15P 99P	16P 100P	17P 101P hep

MANUAL SECTION OF THE 
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Analytical Serv REPORT Results by Sample

LAB # 86-03-021 Continued From Above

SAMPLE ID 860213 H20

FRACTION O1A TEST CODE MS 608
Date & Time Collected 03/01/86

NAME Pesticides & PCBs by GC/MS Category

> AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified



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LAB # 86-03-021	FRACTION OZA TEST CODE M625 A NAME Method 625 Aci Date & Time Collected 03/01/86 Category
REPORT	TEST CODE M625
J Sample	ollected 03/01/86
Analytical Serv	FRACTION 02A
Results by Sample	Date & Time Co
PAGE 10 RECEIVED: 03/04/86	SAMPLE ID 860214 H23

id Compounds

WJL VERIFIED BY LAK 5100 COMPOUNDS DETECTED O	COMPOUND	4-nitrophenol ND	2, 4-dinitrophenol ND	2-methyl-4, 6-dinitrophenol ND	pentachlorophenol ND	phenol ND			
ANALYST	SCAN EPA	28A	59A	₩09	64A	65A			
	NPDES SCAN	7A	Q.	4	9A	10A			
<u>03/02/86</u> 03/24/86	RESULT	Q	Q.	Q.	Q	Q Z	9		RESULT
DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	Z-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND
103021002	O	2, 4,	4-ch10		10	(0		RIES	J
DATA FILE SCUBOZICOZ	SCAN EPA	21A	22A	24A	31A	34A	57A	SURROGATE RECOVERIES	SCAN CODE
DATA FILE CONC. FACTOR	NPDES SCAN	114	8	41	2A	34	<b>6</b> A	URROGA	UJ
ວັ	Z			4	2	78		ល	

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. SCAN \* scan number or retention time on chromatogram. All results reported in

E3

d5-phenol

69

2-fluorophenol

ASS

272

AS1

376

AS3

972

AS4

83

2, 4, 6-tribromophenol

d3-phenol

KNNST SESSEGT SESSEST DIDIDIN BESSESSE DIDIDING SECONSES WESSESSE LEGESSEGT REPORES TRICESET KNS

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Analytical Serv REPORT Results by Sample

LAB # 86-03-021 Continued From Above

SAMPLE ID 860214 H20

FRACTION 02A TEST CODE M625 A
Date & Time Collected 03/01/86

NAME Method 625 Acid Compounds Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL=detected in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit.

Minimum detection indicates dilution of sample if greater than one (1). factor. limits should be multiplied by conc. CONC. FACTOR:

### KANDIANN CORPORATION

PAGE 12 RECEIVED: 03/04/86

Analytical Serv REPORT Results by Sample

LAB # 86-03-021

00/20

LAK O 윋 S ş RESULT 뮏 月 윋 2 月 9 윋 NAME Method 625 Base/Neutrals COMPOUNDS DETECTED VERIFIED BY N-nitrosodimethylamine N-nitrosodi-n-propylamine bis (2-ethylhexyl)phthalate butyl benzyl phthalate di-butyl phthalate acenaphthylene N-nitrosodiphenylamine di-n-octyl phthalate diethyl phthalate dimethyl phthalate benzo(a)pyrene benzo(a)anthracene anthracene benzo(b)fluoranthene benzo(k)fluoranthene chrysene Category COMPOUND 5100 TEST CODE M625 B Date & Time Collected 03/01/86 EPA 61B **9E9** 66B INSTRUMENT 62B 67B **68B** 69B 70B 71B 72B 73B 74B **758 16B** 77B ANALYST **78B** NPDES SCAN 41B 43B 42B 13B 1 3B **26B** 29B 24B 25B 188 **2B 2B** 89 **7B** 98 38 DATE EXTRACTED 03/05/86
DATE INJECTED 03/24/86 RESULT FRACTION 02A 웆 月 月 9 S 叧 뮏 Ӈ 月 밁 月 9 윋 皇 月 月 acenaphthene benzidine 1, 2, 4-trichlorobenzene hexachlorobenzene hexachloroethane 2-chloronaphthalene 1, 2-dichlorobenzene 1, 3-dichlorobenzene 1, 4-dichlorobenzene 2, 4-dinitrotoluene 2,6-dinitrotoluene fluoranthene 408 4-chlorophenyl phenyl ether bis(2-chloroethyl)ether 3,3'dichlorobenzidine 1, 2-diphenylhydrazine COMPOUND DATA FILE SCU03021C02 SAMPLE ID 860214 H2D 80 88 9B 12B 188 20B 25B 26B **27B** 28B 35B 36B 37B 39B EPA CONC. FACTOR NPDES SCAN **4B 1** B 46B 33B 36B 11B 16B 20B **21B** 22B **23B 27B** 28B **29B** 318 17B 2

LAB # 86-03-021 Continued From Above

Analytical Serv REPORT Results by Sample

PAGE 13 RECEIVED: 03/04/86

TEST CODE M625 B NAME Method 625 Base/Neutrals ected 03/01/86	benzo(ghi)perylene ND	#1uorene ND	phenanthrene B ND	dibenzo(a, h)anthracene ND	indeno(1,2,3-cd)pyrene ND	purene ND								
RACTION OZA TEST CODE M625 B Date & Time Collected 03/01/86	79B	808	818	828	838	848								
TEST llecte	88	328	44B	198	37B	45B								
N OZA Time Co	Q	2	2	2	2	9	Q	Q.			27	26	77	
FRACTION <u>O2A</u> Date & Time C	ther	ther	thane	diene	fiene	rone	lene _	- שנשבנ			-auszue	phenyl_	pheny1_	pheny1_
	40	(2-chloroisopropyl)e	s(2-chloroethoxy)me	hexachlorobutad	exach lorocyc lopentae	ordos i	naphtha	ni trober	ហ	RESULT	d5-nitrob	2-fluorobi	d14-terp	410-bip
	4-bromophenyl phenyl e	42B bis(2-chloroisopropyl)e	438 bis(2-chloroethoxy)me		53B hexachlorocyclopentad		naphtha		OVERIES					
SAMPLE ID 860214 H20 D	40	42B bis(2-chloroisopropyl)e	43B bis(2-chloroethoxy)me	52B hexachlorobuta	538 hexachlorocyclopentae	548 isopho	55B naphtha	568 nitrober	SURROGATE RECOVERIES	SCAN CODE RESULT	492 BS1 d5-nitrob	751 BS2 2-fluorobil	972 BS3 d14-ter	BS4 d10-bi

NOTES AND DEFINITIONS FOR THIS REPORT

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). benzo(a)anthracene and chrysene co-elute in high concentrations. All results reported in <u>ug/l</u> unless otherwise specified. \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram.

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RECEIVED: 03/04/86 PAGE 14

Analytical Serv

Serv REPORT Results by Sample

LAB # 86-03-021 Continued From Above

SAMPLE ID 860214 H20

FRACTION OZA TEST CODE M625 B Date & Time Collected 03/01/86

 detected in reagent blank; background subtraction not performed. B = anthracene and phenanthrene co-elute in high concentrations.J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

CONC. FACTOR:

NAME Method 625 Base/Neutrals Category

Minimum detection indicates dilution of sample if greater than one (1).

282

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PAGE 15
RECEIVED: 03/04/86
SAMPLE ID 860214 H20
Received: Received: Results by Sample FRACTION 02A TEST CODE MS 608 NAME Pesticides & PCBs by GC/NS

FRACTION OZA TEST CODE MS 608 Date & Time Collected 03/01/86

NAME Pesticides & PCBs by GC/MS Category

BY LAK TED O	RESULT	S	9	S	Q	S	Q	QN	QN	Q	S	DN	ON	
VERIFIED BY COMPOUNDS DETECTED	<del>Q</del>	alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
MAL COME	COMPOUND													
ANALYST	SCAN EPA	102P	103P	104P	103P	106P	107P	108P	109P	1106	111P	112P	1136	
	NPDES SCAN	8	e e	4	ę,	186	19P	20P	216	22P	23P	24P	25P	
al al	_						<b></b>							
<u>93/05/86</u> <u>93/24/86</u>	RESULT	Q	Q	Q	Q	QN	QN	QN	Q	QN	Q	9	N	QN
		aldrin ND	dieldrin ND	chlordane ND	4, 4'-DBT ND	4, 4'-DDE ND	4, 4'-bbb ND			sulfate	endrin ND	dehyde		epoxide
	COMPOUND					4'-DDE	aaa-, •	alpha endosultan ND	beta endosulfan ND	ulfate			heptachlor ND	poxide
DATE EXTRACTED DATE INJECTED	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-bbb	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin eldehyde	heptachlor	heptachlor epoxide
SCU03021C02 DATE EXTRACTED DATE INJECTED	EPA COMPOUND					4'-DDE	aaa-, •	endosulfan	endosulfan	sulfate		dehyde		epoxide
	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	8P 93P 4,4'-DDE	4, 4'-bbb	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin eldehyde	heptachlor	heptachlor epoxide

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Analytical Serv

REPORT Results by Sample

LAB # 86-03-021 Continued From Above

SAMPLE 10 860214 H20

FRACTION OZA TEST CODE MS 608 Date & Time Collected 03/01/86

NAME Pesticides & PCBs by GC/MS Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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RECEIVED: 03/04/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-03-021

TEST CODE M625 A

NAME Method 625 Acid Compounds Category

Date & Time Collected 03/01/86 FRACTION 03A SAMPLE 10 860215 H20

INSTRUMENT

VERIFIED BY LAK COMPOUNDS DETECTED

DATA FILE SCU03021C03

DATE EXTRACTED 03/05/86 DATE INJECTED 03/24/86

5100

REBULT 윋 2, 4, 6-trichlorophenol COMPOUND 21A EPA NPDES SCAN 11A

NPDES SCAN

4

ď,

月

4-chloro-3-methylphenol

22A

8

24A

14

31A

**7** 

344

**₹** 

285

57A

**4**9

\$

9

2-chlorophenol

**38A** 

月

4-nitrophenol

RESULT

COMPOUND

EPA

9

2, 4-dinitrophenol

밀

月

S

phenol

**60A 59A** 

2-methyl-4, 6-dinitrophenol

pentachlorophenol

**64A** 

4

皇

2, 4-dichlorophenol

**63A** 

2-nitrophenol

10A

月

2, 4-dimethylphenol

SURROGATE RECOVERIES

COMPOUND SCAN CODE

RESULT

d3-phenol\_

2-fluorophenol

2, 4, 6-tribromophenol

AS3

972

AS4

ASS

270

AS1

376

d3-phenol

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in

SECUCIOS VIVIGIAS COSTRAR SASSANA SOLLACA DODOCOS MERCOSA

MANAGEMENT OF A STATE PAGE 18 RECEIVED: 03/04/86

Analytical Serv

REPORT

Continued From Above LAB # 86-03-021

> Results by Sample SAMPLE 1D 860215 H20

FRACTION 03A TEST CODE M625 A
Date & Time Collected 03/01/86

NAME Nethod 625 Acid Compounds

Category

ND = not detected at EPA detection limit method 6.25, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

CONC. FACTOR:

indicates dilution of sample if greater than one (1).

Minimum detection

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ASSISTANT ASSISTANT PERSONAL BATTERING BATTERING PORCODER KATALITICA BATTERING

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	LAB # 86-03-021	5 B NAME Method 625 Base/Neutrals Sategory	WAL VERIFIED BY LAK 5100 COMPOUNDS DETECTED 0	COMPOUND RESULT	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate ND	butyl benzyl phthalate ND	di-butyl phthalate ND	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A ND	benzo(a)pyrene ND	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	Chrysene A ND	acenaphthylene ND	anthracene B ND
	REPORT Nple	03A TEST CODE M625 ime Collected 03/01/86	ANALYST INSTRUMENT	SCAN EPA	618	62B	<b>8</b> £9	<b>66B</b>	<b>8</b> 29	889	<b>69B</b>	70 <b>B</b>	718	728	738	748	758	768	778	788
	REP Its by Sample	TEST collected		NPDES 8	418	<b>438</b>	428	138	158	26B	29B	248	22B	86	89	78	<b>8</b>	188	58	38
XXXXXX		<b>∡</b> ⊢	03/02/86 03/24/86	RESULT	8	Q	Q			2	ğ	2		Q		Q	Q	Q V	Q.	2
MANAMAN SERVICE TO A SERVICE TO	Analytical Serv Resu	PRACTION Date & T	21CO3 DATE EXTRACTED  1 DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexach lorobenzene	hexachloroethane	s(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1, 3-dichlorobenzene	1, 4-dichlorobenzene	3,3'dichlorobenzidine	2, 4-dinitrotoluene	2, 6-dinitrotoluene	1, 2-diphenylhydrazine	fluoranthene	4-chlorophenyl phenyl ether
NA NA	03/04/86	SAPPLE ID 860215 HZO	TLE <u>9CU03021C03</u>	r EPA	18	80	88	98	128	188	20B	258	26B	278	288	328	368	378	398	408 4-ch
	PAGE 19 Received:	SAMPLE ID	DATA FILE CONC. FACTOR	NPDES SCAN	18	48	468	338	368	8:1 4	28	<b>8</b> 02 7	218	228	23B	278	288	29B	318	178
e de la coción	<u> </u>	2,2,25,2,42		32	2:20						11.6	rici		تأسيف	in in the					<u> </u>

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PAGE 20 RECEIVED: 03/04/86

LAB # 86-03-021 Continued From Above

Analytical Serv REPORT Results by Sample

SAMPLE ID 860215 H20	9 860215	H20	FRACTION 03A TEST CODE M625 Date & Time Collected 03/01/86	TEST (	CODE M625 B 03/01/86	TEST CODE M625 B NAME Method 625 Base/Neutrals lected 03/01/86 Category
148	418	4-bromophenyl phenyl	ether ND	88	79B	benzo (ghi)perylene ND
128	428	bis(2-chloroisopropyl)e	Sether ND	328	808	fluorene ND
108	<b>438</b>	bis(2-chloroethoxy)met	ethane ND	448	818	phenanthrene B ND
34B	32B	hexachlorobutad	adiene ND	198	828	dibenzo(a, h) anthracene ND
338	<b>33B</b>	hexachlorocyclopentad	adiene ND	378	838	indeno(1,2,3-cd)pyrene ND
388	348	isop	isophorone ND	458	848	QN energy
39B	338	naphtha	halene ND	· · · · · ·		
40B	268	nitroben	enzene ND	PF 44		
		Ç L				

### SURROGATE RECOVERIES

RESULT	d5-nitrobenzene 14	2-fluorobiphenyl 32	d14-terphenyl78	diO-biphenyl
SCAN CODE	497 BS1	751 BS2	1328 BS3	884
	4	28	8	

### NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). = benzo(a)anthracene and chrysene co-elute in high concentrations. ug/l unless otherwise specified. \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram All results reported in\_

# RADIAN CORPORATION

PAGE 21 RECEIVED: 03/04/86

Analytical Serv

REPORT

LAB # 86-03-021 Continued From Above

NAME Method 625 Base/Neutrals

Category

Minimum detection

indicates dilution of sample if greater than one (1).

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

CONC. FACTOR:

BL = detected in reagent blank; background subtraction not performed. B = anthracene and phenanthrene comelute in high concentrations Results by Sample SAMPLE 1D 860215 H20

FRACTION 03A TEST CODE M625 B Date & Time Collected 03/01/86

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PAGE 22 RECEIVED: 03/04/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-03-021

SAMPLE ID 860215 H20

FRACTION 03A TEST CODE MS 608
Date & Time Collected 03/01/86

NAME Pesticides & PCBs by GC/MS Category

DATA FILE SCU03021C03

DATE EXTRACTED 03/05/86 DATE INJECTED 03/24/86

ANALYST

VERIFIED BY LAK COMPOUNDS DETECTED

RESULT	S	QN	Q	Q	Q	Ö	Q	Q	QN	Q	QN	QN	
	alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
COMPOUND	•		<b>G</b>	•								•	
EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	1111	112P	113P	
S SCAN	2P	9E	46	g.	18P	19P	<u>&amp;</u>	<u>a.</u>	Q.	<u>&amp;</u>	<u>o</u> .	<u>\$</u>	
NPDES							206	1 21P	1 22P	1 23P	24P	256	
RESULT	2	Ž	S	9	S	Q.	S	Q	S	Ş	Q	S	9
	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	endosul fan	endosulfan	sulfate	endrin	dehyde	heptachlor	epoxide
COMPOUND		9.	Ch ]	÷	÷	÷	alpha endo	beta endo	endosulfan s		endrin alde	hept	heptachlor e
EPA	89P	90P	916	92P	93P	946	936	96P	978	98P	d66	100P	101P
SCAN													-
NPDES	4	10P	<b>9</b>	7P	8	96	111	12P	14P	14P	156	16P	17P
 4					4	29	0						

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System Presents

PAGE 23 RECEIVED: 03/04/86

SAMPLE ID 860215 H20

Analytical Serv REPORT Results by Sample

FRACTION 03A TEST CODE MS 608 Date & Time Collected 03/01/86

LAB # 86-03-021 Continued From Above

NAME Pesticides & PCBs by GC/NS

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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RECEIVED: 03/04/86

SAMPLE 10 860216 H20

Analytical Serv

REPORT Results by Sample

LAB # 86-03-021

FRACTION 04A TEST CODE M625 A
Date & Time Collected 03/01/86

NAME Method 625 Acid Compounds Category

> 98/50/60 DATE INJECTED 03/24/86 DATE EXTRACTED DATA FILE SCU03021C04 CONC. FACTOR 1

INSTRUMENT **ANALYST** 

5100

VERIFIED BY LAK COMPOUNDS DETECTED

윋

RESULT

2

S

밀

2

phenol

COMPOUND EPA NPDES SCAN RESULT COMPOUND EPA NPDES SCAN

4-nitrophenol 2, 4-dinitrophenol 2-methyl-4, 6-dinitrophenol pentachlorophenol **60A 584 59A** 64A **63A** 74 S S 44 10A 4 뮏 뮏 묏 9 밁 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2-chlorophenol 2, 4-dichlorophenol 2, 4-dimethylphenol 2-nitrophenol SURROGATE RECOVERIES 21A **22A** 24A 31A 34A **57A** 114 88 14 ₩, **7 P** 292

RESULT 45-phenol 2-fluorophenol 2, 4, 6-tribromophenol d3-phenol COMPOUND **AS**2 AS3 AS4 SCAN CODE **AS1** 375 270 972

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified SCAN = scan number or retention time on chromatogram. All results reported in

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RECEIVED: 03/04/86

Analytical Serv REPORT Results by Sample

LAB # 86-03-021 Continued From Above

SAMPLE ID 860216 H20

FRACTION 04A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected 03/01/86 Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit. Minimum detection

indicates dilution of sample if greater than one (1).

limits should be multiplied by conc. factor.

CONC. FACTOR:

293 4

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PRODUCE BESSESS RECESSES

RECEIVED: 03/04/86 PAGE 26

REPORT Results by Sample Analytical Serv

LAB # 86-03-021

NAME Method 625 Base/Neutrals Category TEST CODE M625 B Date & Time Collected 03/01/86 FRACTION 04A SAMPLE 1D 860216 H20

¥ o 2 9 月 9 묏 윋 밀 윋 S 윋 문 뮏 呈 뮏 RESULT COMPOUNDS DETECTED VERIFIED BY N-nitrosodimethylamine N-nitrosodiphenylamine N-nitrosodi-n-propylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate di-butyl phthalate di-n-octyl phthalate diethyl phthalate dimethyl phthalate benzo(a)pyrene acenaph thy lene anthracene benzo(a)anthracene chrysene benzo(b) fluoranthene benzo(k)fluoranthene COMPOUND 5100 ANALYST INSTRUMENT EPA 61B **63B** 899 62B 67B **869** 718 **72B 73B 74B** 75B 76B **889** 70B **77B 78B** NPDES SCAN 418 42B **26B** 29B 24B 258 18B 43B 138 15B 38 **68** 78 86 2B 38 DATE EXTRACTED 03/05/86 DATE INJECTED 03/24/86 REBULT 2 9 물 물 물 月 月 月 윋 月 月 月 물 月 月 9 acenaphthene benzidine 1, 2, 4-trichlorobenzene hexachlorobenzene hexach loroethane bis(2-chloroethyl)ether 2-chloronaphthalene 1, 2-dichlorobenzene 1. 3-dichlorobenzene 1, 4-dichlorobenzene 3, 3'dichlorobenzidine 2, 4-dinitrotoluene 2,6-dinitrotoluene 1, 2-diphenylhydrazine 40B 4-chlorophenyl phenyl ether fluoranthene COMPOUND DATA FILE SCUGGOZICO4 CONC. FACTOR 1 EPA 12B 18B **20B** 25B **26B 27B** 28B 35B 36B 37B **39B** 38 88 86 NPDES SCAN 46B 33B 36B 11B 21B 22B 23B 27B **28B** 29B 16B **20B** 318 17B 294

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PAGE 27 RECEIVED: 03/04/86	03/04/	Analytical	Serv REPI Results by Sample	REPORT Sample		LAB # 86-03-021 Continued From Above
SAMPLE 1D 860216 H20	86021		ION 04A	FRACTION 04A TEST CODE M625 Date & Time Collected 03/01/86	TEST CODE M625 B ected 03/01/86	NAME Method 625 Base/Neutrals Category
148	418	4-bromophenyl phenyl ether	QN	88	798	benzo(ghi)perylene ND
128	42B	bis(2-chloroisopropyl)ether	QN	328	808	#luorene ND
108	43B	bis(2-chloroethoxy)methane	Q	448	818	phenanthrene B ND
348	32B	hexachlorobutadiene	QN	198	828	dibenzo(a, h)anthracene ND
358	33B	hexachlorocyclopentadiene	Q	378	838	indeno(1,2,3-cd)pyrene ND
388	24B	isophorone	Q	45B	848	purene ND
398	22B	naphthalene	2			
<b>4</b> 0B	26B	nítrobenzene	QN			
SURROGATE	RECOVERIES	RIES				
SCA	SCAN CODE	RESULT				

甲

d5-nitrobenzene\_

2-fluorobiphenyl

d10-biphenyl

**BS4** 

49

d14-terphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in uq/l unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). SCAN = scan number or retention time on chromatogram

= benzo(a)anthracene and chrysene co-elute in high concentrations. \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.

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Analytical Serv

Serv REPORT

LAB # 86-03-021 Continued From Above

B = anthracene and phenanthrene co-elute in high concentrations. Date & Time Collected 03/01/86 SAMPLE 1D 860216 H20

FRACTION 04A TEST CODE M625 B

NAME Method 625 Base/Neutrals Category

Minimum detection

BL = detected in reagent blank; background subtraction not performed.indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc. factor. CONC. FACTOR:

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Analytical Serv REPORT Results by Sample

LAB # 86-03-021

SAMPLE 1D 860216 H20

FRACTION 04A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected 03/01/86

COMPOUNDS DETECTED BY LAK	COMPOUND	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND	
ANALYST WAL	N EPA	102P	1036	104P	105P	106P	107P	108P	109P	110P	111P	112P	113P	
	NPDES SCAN	S.	<u>е</u>	4	g G	18P	19P	20P	21P	222	238	24P	2. P. C.	
<u>03/03/86</u> 03/24/86	RESULT	2	Q	Q	Q	QN	CIN	N O	Q.	Q	Q.	CN	QN	Q
DATE EXTRACTED DATE INJECTED		aldrin	dieldrin	9189	raa	'-DDE	daa-,	)lfan	11 fan	1fate	ndrin	hyde	:hlor	oxide
DATE E DATE	COMPOUND	•	diel	chlordane	4.4	*	4.4	alpha endosulfan	beta endosulfan	endosulfan sul	•	endrin aldehyde	heptachlor	heptachlor ep
DATA FILE <u>SCU03021C04</u> DATE E	SCAN EPA COMPOUND	899	90P die1	91P chlor	4,4	4°4	94P 4,4			3	u <b>●</b> 486	99P endrin alde	100P heptac	101P heptachlor ep

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PAGE 30 RECEIVED: 03/04/86

Analytical Serv REPORT Results by Sample

FRACTION 04A TEST CODE MS 608 Date & Time Collected 03/01/86

LAB # 86-03-021 Continued From Above

NAME Pesticides & PCBs by GC/MS

Category

NOTES AND DEFINITIONS FOR THIS REPORT.

SAMPLE 10 860216 H20

All results reported in micrograms/liter unless otherwise specified. SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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Analytical Serv REPORT Results by Sample

LAB # 86-03-021

RECEIVED: 03/04/86

SAMPLE ID Reagent Blank

FRACTION 05A TEST CODE M625 A NAME Nethod 625 Acid Compounds Date & Time Collected not specified Category

VERIFIED BY LAK DS DETECTED 0	RESULT	Ino I	ND Tous	ND Iona	Iona Iona	phenol ND			
VERIFIED BY COMPOUNDS DETECTED	COMPOUND	4-nitrophenol	2, 4-dinitrophenol	2-methyl-4,6-dinitrophenol	pentachlorophenol	40			
#3E.L				2-methy					
ANALYST	EPA	<b>28</b>	39A	₩09	64A	63A			
ANALYST INSTRUMENT	SCAN								
H	NPDES SCAN	4	S S	4	98	10₽			
786			 ~				 		<b></b>
<u>03/05/86</u> 03/19/86	RESULT	Q	N	Q	Q	Q	S		RESULT
DATE EXTRACTED 03/03 DATE INJECTED 03/15		henoi	heno1	2-chlorophenol N	henoi	henol	2-nitrophenol NE		
DATE EXTRACTED DATE INJECTED	COMPOUND			henoi			henoi	1ES	COMPOUND
2CB03016C18 DATE EXTRACTED  DATE INJECTED		henoi	heno1	henoi	henoi	henol	henoi	ECOVERIES	COMPOUND
2CB03016C18 DATE EXTRACTED  DATE INJECTED	EPA COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2. 4-dichlorophenol	2, 4-dimethylphenol	2-nitrophenol	ATE RECOVERIES	COMPOUND
	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2A 31A 2, 4-dichlorophenol	2, 4-dimethylphenol	2-nitrophenol	SURROGATE RECOVERIES	

NOTES AND DEFINITIONS FOR THIS REPORT.

d5-phenol

2-fluorophenol

**AS2** 

353

**AS1** 

471

ASB

1116

**AS4** 

2. 4, 6-tribromophenol

d3-phenol

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in

RECEIVED: 03/04/86

REPORT REPORT LAB # 86-03-021

Continued From Above

SAMPLE ID Reagent Blank

Date & Time Collected not specified

Category

Date & Time Collected not performed.

SAMPLE ID Reagent Blank

Date & Time Collected not performed.

Category

SECTION: 11/26/84).

CONC. FACTOR: indicates than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). Minimum detection

Limits should be multiplied by conc. factor.

300

BANI ELEKKA DODOD KASSIN DODOD ELEKUA HAKKA BESSER LAGAAN BANIST BESSE

	PARTIE DE DES		MVI			Service and the Service Service and the Service Servic	2233	******	
	PAGE 33 RECEIVED: 0	03/04/86	Analytical	ical Serv Resu	lts. by	REPORT Sample		LAB # 86-03-021	er en er er e
	SAMPLE ID R	Reagent Blank		FRACTION Date & I	JN <u>05A</u> TEST Time Collected	TEST CODE lected not	M625 B specifi	B NAME Method 625 Base/Neutral Fied Category	ر ام
	DATA FILE CONC. FACTOR	E 2CB03016C18	DATE E DATE	EXTRACTED (	03/02/86 03/19/86	ANALYST INSTRUMENT	ANALYST	WAL VERIFIED BY L	¥ -
	NPDES SCAN	EPA	COMPOUND	<b>LE</b> .	RESULT N	NPDES SCAN	EPA	COMPOUND RESULT	ار محمدہ
	18	18	acenaph thene	thene	Q	418	61B	N-nitrosodimethylamine	Q
	48	<b>38</b>	benz	benzidine	Q	43B	62B	N-nitrosodiphenylamine	QN C
	468	89 1,	1, 2, 4-trichlorobenzene	. auseue	Q	428	<b>8</b> 29	N-nitrosodi-n-propylamine	S S S S S S S S S S S S S S S S S S S
	33B	86	hexachlorobenzene	. auazu	Q	138	<b>66B</b>	bis(2-ethylheryl)phthalate	NO.
	368	128	hexachloroethane	thane	Q	158	67B	butyl benzyl phthalate	CZ CZ
	<b>£</b> 4	18B bis	bis(2-chloroethyl)ether	ether _	Q	268 1328	<b>68</b> B	di-butyl phthalate	(n)
	168 168	20B	2-chloronaphthal	alene .	Q.	298	69B	di-n-octyl phthalate	CN CN
	ន្តី 01	25B	1, 2-dichlorobenzen	nzene	Q	248	70B	diethyl phthalate	ZV.
	218	26B	1, 3-dichlorobenzene	. auszua	Q	258	718	dimethyl phthalate	
	22B	27B	1, 4-dichlorobenzen	- auazua	Q	28	72B	benzo(a)anthracene A	ON CIVI
	23B	288	3,3'dichlorobenzidine	tidine .	Q	89	738	penzo(a)purene	<b>2</b>
	278	35B	2, 4-dinitrotoluen	luene .	Q	78	74B	benzo(b)fluoranthene *	ON CO
226	28B	368	2,6-dinitratoluen	luene .	Q	98	758	benzo(k)fluoranthene *	CZ Z
	29B	378	1,2-diphenylhydrazine	.azine	Q	188	76B	chrysene A	ON CO
<i>.</i>	318	39B	fluoranthene	thene _	Q	28	778	acenaphthylene	Q.
	178	40B 4-chlor	4-chlorophenyl phenyl	ether	QN QN	38	78 <b>B</b>	anthracene B	QN
	)								POP SUC
NX	स्ट्रेस्टर्स्य इडस्टर्स्टर्स्	a aramana	3,22,22,22	STEELER S	SHOOM	KASSSESI	155.55	KANDONA TELEFORM DANIES EXECUSES	Second Provided

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PAGE 34 Analytical ServecEIVED: 03/04/86 Res

Analytical Serv REPORT Results by Sample

LAB # 86-03-021 Continued From Above

SAMPLE	SAMPLE ID Reagent Blank		FRACTION OF	A TEST	CODE N625 B	TEST CODE M625 B NAME Method 625 Base/Neutrals
			Date & Time	Collecte	Date & Time Collected not specified	ed Category
14B	418	4-bromophenyl phenyl	ether h	88 ; <u>QN</u>	79B	benzo(ghi)perylene
12B	42B	bis(2-chloroisopropyl)e	ther	ND 32B	808	#luorene ND
108	43B	bis(2-chloroethoxy)met	hane	ND - 44B	818	phenanthrene B ND
34B	52B	hexachlorobutad	iene	ND : 198	828	dibenzo(a, h)anthracene ND
358	<b>929</b>	hexachlorocyclopentadi	ene	ND 1 37B	838	indeno(1,2,3-cd)pyrene ND
388	34B	isopho	rone	ND 1 458	848	QN enema
398	<b>928</b>	naphtha	lene			
408	368	nitroben:	• u • z	 G		
SURROG	SURROGATE RECOVERIES	ERIES				
•	SCAN CODE	T =12.5				

RESULT	d5-nitrobenzene 91	2-fluorobiphenyl 83	d14-terphenyl 68	d10-biphenyl
SCAN CODE	603 BS1	883 BS2	1487 BS3	80.84 4.00
	4	3(	)2	

### NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in <u>ug/l</u> unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).  $^*$   $^*$  benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN - scan number or retention time on chromatogram.

\* benzo(a)anthracene and chrysene co-elute in high concentrations.

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Analytical Serv

REPORT Results by Sample

Continued From Above LAB # 86-03-021

> B = anthracene and phenanthrene co-elute in high concentrations. SAMPLE ID Reagent Blank

BL = detected in reagent blank; background subtraction not performed

J = estimated value; less than method detection limit.

fac tor.

limits should be multiplied by conc.

CONC. FACTOR:

FRACTION 05A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category

Category

Minimum detection indicates dilution of sample if greater than one (1).

# 

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Analytical Serv REPORT Results by Sample

LAB # 86-03-021

SAMPLE ID Reagent Blank

FRACTION 05A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

VERIFIED BY LAK COMPOUNDS DETECTED 0	COMPOUND	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND	
ANALYST	SCAN EPA	102P	103P	1046	105P	106P	107P	108P	109P	110P	1116	112P	1136	
	NPDES	25	ä	4	ę.	18P	198	204	216	22P	236	246	25P	
03/02/86 03/19/86	RESULT	QN	QN	QN	Q	QN	QN	Q	QN	Q	QN	QN	QN	QN
DATE EXTRACTED DATE INJECTED	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor	heptachlor epoxide
20803021005	EPA	ВЭР	90P	91P	92P	93P	94P	95P	96P	97P	98P	d66	100P	101P
DATA FILE IC. FACTOR			-		-								-	-
DATA FILE CDNC. FACTOR	NPDES SCAN	4	10P	<b>49</b>	e 4	& 1 3	ֆ 04	11P	12P	14P	146	15P	16P	17P

## KANDHAM.

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Results by Sample Analytical Serv

REPORT

FRACTION O5A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

LAB # 86-03-021

Continued From Above

NOTES AND DEFINITIONS FOR THIS REPORT. SAMPLE ID Reagent Blank

All results reported in micrograms/liter unless otherwise specified. SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

### RWINGE A TINE

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Analytical Serv REPORT Results by Sample

LAB # 86-03-021

TEST CODE SW8240 NAME GCMS Volatiles - SW846 FRACTION 06A SAMPLE ID 860025 HZo VOA Soil

Category	F4 COMPOUNDS DETECTED 1	COMPOUND	1, 2-dichloropropane ND	cis-1, 3-dichloropropylene ND	trans-1, 3-dichloropropylene ND	ethylbenzene ND	methylene chloride 5 BL	methyl chloride ND	methyl bromide ND	bromoform ND	dichlorobromomethane ND	trichlorofluoromethane NB	chlorodibromomethane ND	tetrachloroethylene ND	toluene ND	trichloroethylene ND	vinyl chloride ND	
ected 02/28/86	ANALYSTINSTRUMENT	S SCAN EPA	\ 32V	<b>^6 ^6</b>	330	\ \ \	2V 99 44V	V 45V	<b>794</b>	5V 47V	V84 Vi	764	8V 51V	V 85V	<b>198</b>	V 87V	\A88 \\ \^.	
Date & Time Collected	<u>03/17/86</u>	RESULT NPDES	V71 I QN	VB1 18V	VB1 18V	VO 190	VD   22V	VIS   QN	ND : 20V	QN	VZ1 12V	AOE GN	QN	ND 1 24V	ND 1 25V	290	310	
Date	DATE INJECTED	COMPOUND	benzene	carbon tetrachloride	chlorobenzene	1,2-dichloroethane	1, 1, 1-trichloroethane	1,1-dichloroethane	1, 1, 2-trichloroethane	1, 1, 2, 2-tetrachloroethane	chloroethane	2-chloroethylvinyl ether	chloroform	1,1-dichloroethylene	1,2-trans-dichloroethylene			
집	Ö																	
שווערב זה ספטעבט חבט ערה שפוזי	DATA FILE 4CU03021V06 CONC. FACTOR 1	SCAN EPA	\$	>9	2	100	110	130	140	150	16V	190	230	290	300 1			

# gaagi bassassi bassasai kasaasi kasaasaa maaaaaa kasaaaaa kasaaaa kasaasaa kasaasaa basaasaa basaa B RADIAN

RECEIVED: 03/04/86

serv REPORT Results by Sample Analytical Serv

LAB # 86-03-021 Continued From Above

SAMPLE ID 860025 HZo VOA SOII

FRACTION 06A TEST CODE SW8240 Date & Time Collected 02/28/86

NAME GCMS Volatiles - SW846 Category

SURROGATE RECOVERIES

102 92 RESULT bromofluorobenzene\_ d4-1, 1-dichloroethane\_ dB-toluene COMPOUND **VS2 687** SCAN CODE **VS1** 199 381 471

AND DEFINITIONS FOR THIS REPORT. NOTES

All results reported in <u>ug/kg</u> unless otherwise specified. SCAN = scan number or retention time on chromatogram.

ND= not detected at detection limit of 10~ ug/kg, unless otherwise specified.

BL = detected in reagent blank; background subtraction not performed.J = estimated value; less than method detection limit.

than one (1). CONC. FACTOR: indicates dilution of sample if greater detection limits should be multiplied by conc. factor.

Minimum

# CONTRACTOR OCCORDAND BARRAGO COMPAGNACION DESCRIPTARIO COSSESSION DE COSSESION DE CONTRACTOR DE CONT

RECEIVED: 03/04/86

REPORT Results by Sample Analytical Serv

LAB # 86-03-021

NAME GCMS Volatiles - SW846 Category FRACTION O7A TEST CODE SW8240 Date & Time Collected 02/28/86 SAMPLE ID 860026 VOA Soil

VERIFIED BY LAK COMPOUNDS DETECTED 1 9 2 9 윋 皇 ᄝ 9 윋 月 月 月 9 윋 月 RESULT 2 Bi. 33V trans-1, 3-dichloropropylene ethy lbenzene methylene chloride bromoform 1, 2-dichloropropane methyl chloride tetrachloroethylene vinyl chloride cis-1, 3-dichloropropylene methyl bromide dichlorobromomethane trichlorofluoromethane trich loroethy lene ch lorod ibromome than e COMPOUND F4 **>EE** ANALYST INSTRUMENT 510 EPA 32 380 46< 47 **48** 49 85 867 870 44 **45%** 88 NPDES SCAN 103 224 18< 184 19 212 200 2 12 >0E 8 24< 250 29< 316 170 DATE INJECTED 03/17/86 RESULT 뮏 욷 윋 뒫 뮏 ᄝ 윋 뮏 물 윋 S 月 뒫 benzene ch lorobenzene carbon tetrachloride 1, 2-dichloroethane 1. 1-dichloroethane 1, 1, 2-trichloroethane 1, 1, 2, 2-tetrachloroethane chloroethane 2-chloroethylvinyl ether chloroform 1, 1-dichloroethylene 1, 2-trans-dichloroethylene 1, 1, 1—trichloroethane COMPOUND DATA FILE 4CU03021V07 CONC. FACTOR 1 15 3 **>0**0 EPA 100 14< 16< 23< 110 134 248 **2** 3 ? NPDES SCAN ₹ 308 **}** გ **}** ? 15 277 140 287 205 110 160 267

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CONTROL STATION STATEMENT STATEMENT

PRINTER RELEGIES

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serv Results by Sample Analytical Serv

LAB # 86-03-021

Continued From Above

SAMPLE ID 860026 VDA Soil

FRACTION O7A TEST CODE SW8240
Date & Time Collected 02/28/86

NAME GCMS Volatiles - SW846 Category

SURROGATE RECOVERIES

bromofluorobenzene\_ d4-1, 1-dichloroethane dB-toluene COMPOUND **ZS**2 **683 7**87 SCAN CODE 382 201 471

101

RESULT

AND DEFINITIONS FOR THIS REPORT NOTES

SCAN = scan number or retention time on chromatogram.

ND = not detected at detection limit of 10 ug/kg, unless otherwise specified. All results reported in <u>ug/kg</u> unless otherwise specified.

BL = detected in reagent blank; background subtraction not performed J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1). letection limits should be multiplied by conc. factor.

309

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Minimum

VOL SSSSSSS MAGGAAT BARBART BAGGGGT ACCORNI BAGASAN BAGASAR DECENAR KOCOON TOWACH BAGG

# CORPORATION

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Analytical Serv REPORT Results by Sample

LAB # 86-03-021

FRACTION OBA TEST CODE SW8240 NAME GCMS Volatiles - SW846 Date & Time Collected not specified Category SAMPLE ID Reagent Blank VDA

VERIFIED BY LAK  COMPOUNDS DETECTED 1	COMPOUND RESULT	1, 2-dichloropropane ND	cis-1,3-dichloropropylene ND	trans-1, 3-dichloropropylene ND	ethylbenzene ND	methylene chloride	methyl chloride ND	methyl bromide ND	bromoform ND	dichlorobromomethane ND	trichlorofluoromethane ND	chlorodibromomethane ND	tetrachloroethylene ND	toluene ND	trichloroethylene ND	vinyl chloride ND
ANAL YST TRUMENT	EPA	320	336	336	386	>44	450	460	470	480	490	510	836	867	870	88
ANALYST INSTRUMENT	SCAN				_	106					_	_				
.al	NPDES	<b>1</b>	184	184	194	220	210	200	<u>}</u>	120	30<	8	240	254	294	310
03/17/86	RESULT	Q	Q	Q	QN	QN	QN	QN	QN	QN	QN	QN	QN	Q		
INJECTED		<b>.</b>	•	•	9		8	•	•	ě	F	Ę	6	6		
DATE INJ	OMPOUND	benzene	bon tetrachlori	chlorobenzene	,2-dichloroethane	1-trichloroetha	, 1-dichloroetha	2-trichloroethan	tetrachloroethan	chloroethane	oethylvinyl ether	chloroform	-dichloroethyle	-dichloroethylene		
DATE	COMPOUND	penz	carbon tetrachloride		1,2-dichloroetha	1, 1, 1—trichloroethane	1,1-dichloroethane	1, 1, 2-trichloroethane	1, 1, 2, 2—tetrachloroethane	chloroethar	2-chloroethylvinyl eth	chlorofo	1,1-dichloroethylene	1,2-trans-dichloroethyle		
4EB0317V000 DATE	EPA COMPOUND	4V benz	6V carbon tetrachlori		10V 1,2-dichloroetha	11V 1,1.1-trichloroetha	13V 1.1-dichloroethan	14V 1,1,2-trichloroethan	15V 1,1,2,2-tetrachloroethan	16V chloroethar	_	23V chlorofo	29V 1,1-dichloroethyle	30V 1,2-trans-dichloroethyle		
DATE				chlorobe	1, 2-dichloroe					chloroe	2-chloroethylvinyl			1,2-trans-dichloroeth		

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RECEIVED: 03/04/86

Analytical Serv

REPORT Results by Sample

Continued From Above LAB # 86-03-021

SAMPLE ID Reagent Blank VOA

FRACTION OBA TEST CODE SW8240 NAME GCMS Volatiles - SW846 Date & Time Collected not specified Category

Category

SURROGATE RECOVERIES

25 8 RESULT bromofluorobenzene\_ d4-1,1-dichloroethane\_ dB-toluene COMPOUND **VS2** SCAN CODE **VS1 VS3** 202 382 471

AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number or retention time on chromatogram.

ND = not detected at detection limit of  $10 \, \text{ug/kg}$ , unless otherwise specified. All results reported in <u>ug/kg</u> unless otherwise specified.

BL = detected in reagent blanki background subtraction not performed J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1). detection limits should be multiplied by conc. factor.

Minimum

LAB # 86-03-021

Serv REPORT NonReported Work

Analytical Serv

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FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE 01B 02B 03B 04B

DUP NS DUP NS DUP NS DUP NS

	Work Order # 86-04-069	Services  CERTIFIED BY	CONTACT CONDVER	formed on 602 split 02.	05/29/86.	than 5 times the detection limit. low values ranges between 50 and 100%.	recovery for this analysis on the t within acceptable limits indicating	CRES CODES and NAMES used on this report	
	Austin 09/08/86 12:06:21	PREPARED Radian Analytical Services BY 8501 Mo-pac B1 PO Box 9948 Austin, TX 78751	ATTEN PHONE 512-454-479	# Interference 2nd column confirmation performed	t of ents	Indicates a value less otential error for such	@ Indicates that spike recovery specific matrix was not within an interferent present	Silver, I Arsenic,	Cadmium, Chromium, Digestion EPA metho EPA metho Hydrocarb Mercury, Oil and q Cead, gra
CORPORATION	Page 1 Pacetved: 04/10/86	refuget Radian TO B1.4 Austin	CLIENT PLANT4 SAMPLES 3	ACILITY General Dynamics	TAKEN WULWH	F 0. # 212-027-27-40 INV # 8015	4 3	SAMPLE IDENTIFICATION  ASSESSED  ASSESSED  ASSESSED  BA F	CR B DE SCR E F PAC HC ONG SE CONG SE

iage 2 iceived: 04/10/86	RAS	- Austin Results By Test	REPORT Test	Work Order # 86-04-069	
TEST CODE	Sample 01 .	Sample 02 (entered units)	Sample 03 (entered units)		
u od	€. 002	0.007*			
0.85 0.85 0.85	₹. 002	<.002			
E 11.	0.057	0.041			
	<. 002	0.003*			
E 11	0.013	0.005*			
03.020 D03020	05/01/86	05/01/86			
date complete	05/01/86	05/01/86			
HC_IR			₽		
UNG IR			*		
5 8d	0.009	0.013			
	€03	€003			
	e Para ( ) Para ( )	Validation professional and the contract of the second second second second second second second second second	e despes especial est e de la segui despesa prese des est e en est e especial especial est est e especial especial est est e especial especial est especial		

AND CORPORATION

Page 3 Peceived: 04/10/86

Austin Results by Sample RAS

Work Order # 86-04-069

NAME EPA method 601 Category FRACTION 01A TEST CUDE EPA601 Date & Time Collected 04/09/86 812098 OI 311MVE

VERIFIED MCL G UNITS U9/1	DET LIMIT	0.08	1. 18	0.18	0.52	0.25	QN	0.13	0.07	0.10	0 02	0.03	0.03	0.12	0.10
FILE #	RESULT	QN	QN	QN	QN	QN	QN	CIN	GN.	N.	QN	QN	QN	N	QN
INJECTD 04/14/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
ANSTEMT G	#S <b>V</b> O	74-87-3	74-83-9	75-01-4	75-00-3	2-50-57	15-69-4	75-35-4	75-34-3	156-60-5	67-66-3	107-06-2	71-55-6	56-23-5	75-27-4

NAMES OF PERSONS SOURCES SUCCESS SUCCESSORY

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•		HAS AUSTIN			
99:elved: 04/10/86	/10/86	Resul	ts by	Sample	Continued From Above
ample 10 860218	0218	FRACTION (Date & Tin	O1A Ime Colle	01A TEST CUDE EPA601 me Collected 04/09/86	NAME EPA method 601 Category
ζ <b>Α</b> Ω	CAS#	COMPOUND	RESULT	DET LIMIT	
78-87-5	7-5	1,2-Dichloropropane	N	0.04	
10061-02-6	36	trans-1,3-Dichloropropene	N	0.34	
79-01-6	1 - 6	Trichloroethene	N N	0.12	
124-48-1	8-1	[)1tromochloromethane	CN	60.0	
9-00-62	<b>9</b> -0	1, 1, 2-Trichloroethane	N	0 05	
10061-01-5	1-5	cis-1, 3-Dichloropropene	QN	0.20	
110-75-8	5-8	2-Chloroethylvinyl ether	CN		
2-52-51	5-5	Втомоғотм	CIN	0.20	
79-34-5	3-61	1, 1, 2, 2-Tetrachloroethane	ON	60.0	
16	9-4	Tetrach]oroethene	QN.	0 03	
108-90-7	7-0,	Chlorobenzene	CIN	0.25	
541-73-1	73-1	1, 3-Dichlorobenzene	QN	0.32	
95-50-1	10-1	1,2-Dichlorobenzene	ÛN	0 15	
105-46-7	7-91	1, 4-Dichlorobenzene	an	0 24	
		SURROGATES			
5 26-42	# · · · · · · · · · · · · · · · · · · ·	Bromochloromethane	% 26	Recovery	
3017-95-5	35-6	2.Bromo-1.chloropropane	7. #57	Recovery	
110~56~9	18. St	1-4-Dichlarobutane	%	Recovery	

MANAGEMENT CONTRACTOR 
RAS

Austin

REPORT

Pecalved: 04/10/86 . 30e

SAMPLE 10 860218

FRACTION OIA TEST CODE EPA601 Date % Time Collected 04/09/86

Results by Sample

Work Order # 86-04-069

Continued From Above

NAME EPA method 601 Category

% Recovery

1-Brome-4-fluerobenzene

460-00-4

\* = less than 5 times the detection limit

N\A= not available

317

4

NA = not analyzed

ND = not detected at detection limit

USIES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

CORPORATION

5191ved: 04:19/86

REPORT Results by Sample - Austin RAS

Work Order # 86-04-069

SAMPLE 10 860218

NAME EPA method 602 Category FRACTION OIB TEST CUDE EPA602 Date & Time Collected 04/09/86

VERIFIED

RP INSTEMI ANALYST

FILE #

UNITS

COMPOUND 1NJECTED 04/14/86

CAS#

71-43-2

108-88-3

100-41-4

RESULT DET LIMIT Benzene

0.20 0.20 7.39 Toluene

밁 Ethylbenzene

0.20

일 Chlorobenzene

0. 20

月 1, 4-Dichlorobenzene

1, 3-Dichlorobenzene

1,2-Dichlorobenzene

95-50-1

0.30

0.40 2

0.40

2

SURROGATES

106% recovery a, a, a-Trifluorotoluene

THIS AND DEFINITIONS FOR THIS REPORT

8-80-86

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

NA = not analyzed

\* = less than 5 times the detection limit

N/A = not available

106-46-7

541-73-1

108-801

SOME SECOND OF A CONTROL OF A C Work Order # 86-04-069 NAME Mercury, cold vapor Category ug/m] GCL UNITS VERIFIED FRACTION OIE TEST CODE HG C Date & Time Collected 04/09/86 Results by Sample DET LIMIT - Austin ANALYZED 04/24/86 RESULT RAS ANALYTE 3618 7 36110/86 36110/86 OC SAFPLE ID 860218 TSY JAL' PMR (221)

MOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

0.0002

0005\*

Mercury

\* = less than 5 times the detection limit N/A = not available

NA = not analyzed

#acetved: 04/10/86 e ave

itin Results by Sample Austin t RAS

Work Order # 86-04-069

SAMPLE 10 860219

NAME EPA method 601 Category FRACTION 02A TEST CUDE EPA601 Date & Time Collected 04/09/86

uq/l VERIFIED UNITS DET LIMIT 0.08 0.18 0.25 0.13 0.03 0.12 0.52 QN 0 10 0.05 0.03 0.07 0 10 FILE # RESULT R 2 S 밁 외 2 S S 2 Ž 밁 g 2 2 INJECTD 04/14/86 Chloromethane Bromomethane Vinyl chloride Ch.loroethane Methylene chloride Trichlorofluoromethane 1, 1-Dichloroethene 1, 1-Dichloroethane trans-1, 2-Dichloroethene Chloroform 1, 2-Dichloroethane 1, 1, 1-Trichloroethane Carbon tetrachloride Bromodichloromethane COMPOUND 75-34-3 74-87-3 74-83-9 75-00-3 75-09-5 75-69-4 156-60-5 67-66-3 107-06-2 71-55-6 56-23-5 75-27-4 75-01-4 75-35-4 CAS# ANAL YST **MRTEM** 320

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K\$\$\$\$	Work Order # 86-04-069 Continued From Above	NAME EPA method 601 Category																			-
	REPORT ample	02A TEST CODE EPA601 me Collected 04/09/86	DET LIMIT	0.04	0.34	0.12	0.09	0.05	0.20		0.20	0.03	60.03	0.25	0.32	0.15	0.24		Recovery	Recovery	Recovery
	REP ts by Sample	02A .me Coll	RESULT	QN	CIN	CN	ÛN	S.	ON N	QN	QN	QN	QN	QN	QN	QN	QN		111 %	7 #99	%
MEN MANAGEMENT OF THE POST OF	RAS - Austin Resul	FRACTION (	COMPOUND	1,2-Dichloropropane	trans-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1, 1, 2-Trichloroethane	cis-1,3-Dichloropropene	2-Chloroethylvinyl ether	Bromoform	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Chlorobenzene	1, 3-Dichlorobenzene	1,2-Dichlorobenzene	1, 4-Dichlorobenzene	SURROGATES	Bromochloromethane	2-Bromo-1-chloropropane	1-4-Dichlorobutane
NO DESCRIPTION OF STREET	Gage 9 Geterved: 04/10/86	SAMPLE 1D 860219	CAS#	78-87-5	10061-02-6	79-01-5	124-48-1	79-00-5	10061-01-5	110-75-8	75-25-2	79-34-5	127-18-4	108-90-7	541-73-1	95-50-1	106-46-7		74-97-5	3017-95-6	110-56-5
	Company of the compan	E Si Si	<b>.</b> 5150	V.N.	1. <b>5.</b> 4.	3, 1		ماءا،	ry ruin.	ور المال الم	4	32	1	(gera f.	<b>.</b> * 1 * -	*. *. •	* a. * a. *	. و م	<b>&amp;</b> ' &' •	. ነል፣ ላ	ነ ዲ ነ የፌኒ የ
	MANUSCO SE		12.10	متمته	لكنين		<i>ilin</i> ii.i		i X	2.4	7.47.4	SACK!	بالمناه	2.2.2	7.7			.Y	4	Yatla	

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CORPORATION

| sie 10 | Received: 04/10/86

\$ 34MPLE ID 860219

- Austin Results by Sample

RAS

Work Order # 86-04-069 Continued From Above

FRACTION OZA TEST CODE EPA601 Date & Time Collected 04/09/86

1-Bromo-4-fluorobenzene 460--00-4

% Recovery

NAME EPA method 601 Category

MOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

\* = less than 5 times the detection limit NA = not analyzed

N\A= not available

322

NAME EPA method 602 Category FRACTION 02B TEST CODE EPA602 Date & Time Collected 04/09/86 stin Results by Sample S Page 11 S Pecelved: 04/10/86 10 860219

- Austin

RAS

Work Order # 86-04-069

VERIFIED

MCL

09/1 UNITS RESULT DET LIMIT 0.20 0.20 0.20 0. 20 0.30 0.40 0.40 밀 2 밀 2 ğ 밁 COMPOUND Benzene Toluene Ethylbenzene Chlorobenzene 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene FILE # INJECTED 04/14/86 CAS# 71-43-2 108-88-3 100-41-4 109-90-7 106-46-7 95-50-1 541-73-1 RP AMAL , ST TMETERI

SURROGATES

100% recovery a, a, a-Trifluorotoluene 8-80-86

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

NA = not analyzed

\* = less than 5 times the detection limit N/A = not available

323

CORPORATION 

ived: 04/10/86 Sene 12

10 860219

- Austin RAS

stin Results by Sample

FRACTION OZE TEST CODE HG C Date & Time Collected 04/09/86

Work Order # 86-04-069

NAME Mercury, cold vapor

Category

UNITS

0.0002

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Mercury

\* = less than " times the detection limit

N\A = not available

324

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NA = not analyzed

ND = not detected at detection limit

COTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

DET LIMIT

RESULT

ANALYTE

ANALYZED 04/24/86

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ANALYST

VERIFIED

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Work Order # 86-04-069	IE EPA method 601 Category	MCL UQ/1						•									
REPORT by Sample	03A TEST CODE EPA601 NAME me Collected 04/09/86	VERIFIED FILE # 6	RESULT DET LIMIT	ND 0.08	ND 1.18	ND 0.18	ND 0.52	ND 0.25	QN QN	ND 0.13	ND 0 07	ND 0.10	ND 0 05	ND 0 03	0 0 dN	ND 0.12	ND 0, 10
RAS - Austin Results	FRACTION 03A Date & Time	INJECTD 04/14/86	COMPOUND	Chloromethane .	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1, 2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
Page 13 Pecetved: 04/10/86	SAMPLE ID 860220	ANALYST RP	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	2-60-51	75-69-4	G: 75-35-4	75-34-3	156-60-5	67-66-3	10706-2	71-55-6	56-23-5	75-27-4

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SAMPLE 10 860220

- Austin

RAS

stin Results by Sample

Work Order # 86-04-069 Continued From Above

NAME EPA method 601 Category

FRACTION 03A TEST CODE EPA601 Date & Time Collected 04/09/86

% Recovery 1-Bromo-4-fluorobenzene

460--00-4

MATES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

\* = less than 5 times the detection limit NA = not analyzed

N\A= not available

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Austin RAS

REPORT Results by Sample

Work Order # 86-04-069

Pacelived: 04/10/86 91 ane

SAMPLE ID 860220

FRACTION 03B TEST CODE EPA602 Date & Time Collected 04/09/86

NAME EPA method 602

Category

VERIFIED

FILE # INJECTED 04/14/86 S S

> ANALYST INSTRMI

UNITS

09/1

RESULT DET LIMIT COMPOUND CAS#

0.20 의 Benzene

0. 20 0.95 Toluene

108-88-3

100-41-4

108-90-7

71-43-2

0. 20 밀 Ethylbenzene

0. 20 2 Chlorobenzene

0.30 0.40 밀 2 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene

106-46-7

541-73-1

95-50-1

1,2-Dichlorobenzene

0.40

QN.

103% recovery a, a, a-Trifluorotoluene 8-80-86

SURROGATES

SOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

NA = not analyzed  $\star$  = less than 5 times the detection limit

= not available

Work Order # 86-04-069

RAS

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PACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

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01D 02D 03D

SPARE SPARE SPARE

916 936 936

Austin REPORT NonReported Work

# 

LAB # 86-04-070

REPORT

Analytical Serv

specific matrix was not within acceptable limits indicating \* Indicates a value less than 5 times the detection limit. CONTACT FRENCH <u>E indicates that spike recoveru for this analusis on the </u> CERTIFIED BY Analytical Serv TEST CODES and NAMES used on this report Potential error for such low values ranges between PREPARED Radian Analutical Services Footnotes and Comments Duplicate of report of 04/28/86 Austin, Texas 78766 EX 623 Extraction only - 623 BN/A M625 A Method 625 Acid Compounds M625 B Method 625 Base/Neutrals 45 608 Pesticides & PCBs by GC/MS 8501 MoPac Blvd (512) 454-4797 P. C. Box 9948 an interferent present 09/08/86 12:36:19 50 and 100% æ PHONE ATTEN SAMPLES US Air Forre Radar Range DEHL Plant 4, Bldg 4 REPORT Radian Corporation General Dunamics Fed Ex 343914255 SAMPLE IDENTIFICATION 212-027-27-40 7848 Austin, Texas Austin, Texas erry French Reagent Blank H20 RECEIVED: 04/10/86 4/10/86 PLANT 4 860218 H20 860219 HZ0 TRANS 2 MORK ID **CLIENT** TAKEN COMPANY FACILITY ATTEN P. O. N. 김영영 330 4

Comment from

	NOTATION OF THE PROPERTY OF TH		200000 555555		
PAGE 2 RECEIVED: 04/10/86		Analytical Serv RESULTS BY TEST	REPORT Test	LAB # 86-04-070	erinerinerinerineri
TEST CODE	Sample 01 Sample (entered	Sample 02 (entered units)	e <u>02</u> Sample <u>03</u>		
EX 625 date complete	04/10/86	04/10/86	04/10/86	any and many at the	er en
					and and and a

## 8368559 (2222222) 222222 35555559 (8 ्रा १५५५४५५५ । इस्टाइस्टर्स

PAGE 3 RECEIVED: 04/10/86

Serv REPORT Analytical Serv

LAB # 86-04-070

FRACTION OIA TEST CODE M625 A
Date & Time Collected 04/10/86

NAME Method 625 Acid Compounds Category

SAMPLE ID 860218 HZD

DATA FILE 20004070001

DATE EXTRACTED 04/10/86 DATE INJECTED 04/23/86

CONC. FACTOR

ANALYST INSTRUMENT

VERIFIED BY LAK COMPOUNDS DETECTED

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COMPOUND	4-nitrophenol	2,4-dinitrophenol	2-methyl-4, 6-dinitrophenol	pentachlorophenol	phenol	
EPA	<b>28A</b>	<b>39A</b>	<b>60A</b>	64A	63A	
SCAN						
NPDES SCAN	7	e V	4	46	104	
RESULT	QN	QN	QN	Q	Q	Q
COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol
EPA	21A	22A	24A	31A	34A	57A
SCAN						
NPDES	114	8A	4	24	9	<b>∀</b> 9

## SURROGATE RECOVERIES

d3-phenol	AS4	
2, 4, 6-tribromophenol 88%	AS3	1093
2-fluarophenol66%	AS2	342
d5-phenol75%	AS1	460
COMPOUND	CODE	SCAN CODE

SCAN = scan number or retention time on chromatogram. NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. All results reported in

PAGE 4 RECEIVED: 04/10/86

Results by Sample Analytical Serv

REPORT

LAB # 86-04-070

Continued From Above

SAMPLE 1D 860218 H20

NAME Method 625 Acid Compounds Category

FRACTION OIA TEST CODE M625 A
Date & Time Collected 04/10/86

BL = detected in reagent blank; background subtraction not performed. indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc.

factor.

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

Minimum detection

## KWDICEN CORPORATION

PAGE 5 RECEIVED: 04/10/86

Analytical Serv REPORT Results by Sample

LAB # 86-04-070

NAME Method 625 Base/Neutrals Category	VERIFIED BY LAK COMPOUNDS DETECTED 2	COMPOUND RESULT	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate 5	l benzyl phthalate ND	di-butyl phthalate 4	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A ND	benzo(a)pyrene	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A ND	acenaphthylene ND	anthracene B ND
B NAME !	# C#	•	N-n#	N-ni	N-nitro	bis(2-et	butyl	•	·10		-	9		penzo	ben z o			
M625 10/86	ANALYST TRUMENT	EPA	61B	62B	8E9	66B	<b>67B</b>	<b>889</b>	869	70B	718	72B	738	74B	75B	76B	77B	788
Collected 04/10/86	ANALYST INSTRUMENT	NPDES SCAN	418	43B	42B	13B 1646	158	26B 1304	29B	24B	25B	3B	89	78	98	18B	28	38
FRACTION <u>OIA</u> Date & Time Coll	04/10/86	RESULT NF	Q	Q	QN	2	Q	Q	9	Q	Q	Q	ON N	Q	Q	Q	Q	QN
FRACTI Date 8	DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1,3-dichlorobenzene	1, 4-dichlorobenzene	3,3'dichlorobenzidine	2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	henyl phenyl ether
18 H20	2CU04070C01		_			-	_							-	•		m	4-chlorophenyl
SAMPLE 1D <u>860218 H20</u>	DATA FILE <u>20</u> CONC. FACTOR	SCAN EPA	18	80	88	86	128	188	208	258	26B	278	288	358	368	378	398	40B
E E	DATA	NPDES S	18	<b>4</b> B	46B	338	36B	118	16B	20B	218	22B	23B	27B	28B	29B	318	17B

Product express tecesses, elected, produced tecesses foreseed proposed tecesses tesesper tesesfes bord

## Resear Services Reviewed Bysysses Reseased Burguages Reseased Bases See Burguages Benefic Reviewed Reseased Research NAISE SE

PAGE 6 RECEIVED: 04/10/86 SAMPLE ID <u>860218 H20</u>	04/10/	Analyti	Cal Serv Results by Sample FRACTION OIA TEST	Sample TEST COD	REPORT Jample TEST CODE M625 B	LAB # 86-04-070 Continued From Above NAME Method 625 Base/Neutrals
148	418	Jate 4-bromophenyl phenyl ether	Date & lime tollected U4/1U/86 ether ND : 88 798	uected <u>v</u>	4/ 1U/86 79B	tategory benzo(ghi)perylene ND
128	42B	bis(2-chloroisopropyl)ether	Q.	32B	808	fluorene ND
108	<b>43B</b>	bis(2-chloroethoxy)methane	2	44B	818	phenanthrene B ND
348	<b>228</b>	hexachlorobutadiene	2	198	82B	dibenzo(a, h) anthracene ND
358	<b>238</b>	hexachlorocyclopentadiene	Q.	378	838	indeno(1, 2, 3-cd)pyrene ND
388	548	isophorone	Q.	458	848	Dyrene ND
398	35B	naphthalene	2			
408	26B	nitrobenzene	QN			
SURROGATE	RECOVER IES	RIES				
₹3S	SCAN CODE	RESULT				

NOTES AND DEFINITIONS FOR THIS REPORT.

89%

d5-nitrobenzene\_

BS1

588

4

**BS**2

863

335

**BS3** 

1461

BS4

89%

2-fluorobiphenyl\_

d14-terphenyl 110%

d10-biphenyl

SCAN = scan number or retention time on chromatogram

All results reported in uq/l unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).  $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute

= benzo(a)anthracene and chrysene co-elute in high concentrations.

PAGE 7 RECEIVED: 04/10/86

Analytical Serv REPORT Results by Sample

LAB # 86-04-070 Continued From Above

SAMPLE 1D 860218 H20

FRACTION 01A TEST CODE M625 B Date & Time Collected 04/10/86

NAME Method 625 Base/Neutrals Category

Minimum detection

= detected in reagent blank; background subtraction not performed. indicates dilution of sample if greater than one (1). and phenanthrene co-elute in high concentrations. J = estimated value; less than method detection limit. B = anthracene CONC. FACTOR:

limits should be multiplied by conc. factor.

336

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# EXT. COCC. DIAN

PAGE 8 RECEIVED: 04/10/86

Analytical Serv

serv REPORT Results by Sample

LAB # 86-04-070

SAMPLE 1D 860218 H20

FRACTION 01A TEST CODE MS 608 Date & Time Collected 04/10/86

NAME Pesticides & PCBs by GC/MS Category

COMPOUNDS DETECTED BY LAK	COMPOUND	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND	
ANALYST	SCAN EPA	102P	1036	104P	103P	106P	107P	108P	109P	110P	1116	112P	113P	
	NPDES	çı	8	4	in L	189	196	20P	21P	22P	23P	24P	25	
<u>04/10/86</u> <u>04/23/86</u>	RESULT	QV	9	Q	Q	9	Q	9	Ð	Q	Q	9	Q.	Q.
DATE EXTRACTED DATE INJECTED	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor	heptachlor epoxide
DATA FILE <u>2CU04070C01</u> IC. FACTOR	EPA	89P	90P	916	92P	93P	94P	95P	496	97P	486	d66	100P	101P
DATA FILE CONC. FACTOR	NPDES SCAN	16	10P	<b>6</b> P	£ 4	<b>&amp;</b>	<del>ዩ</del> 87	11P	12P	146	14P	15P	16P	17P

PAGE 9 RECEIVED: 04/10/86

Analytical Serv

REPORT Results by Sample

LAB # 86-04-070 Continued From Above

SAMPLE ID 860218 H20

FRACTION OIA TEST CODE MS 608 Date & Time Collected 04/10/86

NAME Pesticides & PCBs by GC/MS Category

> AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

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PAGE 10 RECEIVED: 04/10/86

Serv Results by Sample Analytical Serv

LAB # 86-04-070

NAME Method 625 Acid Compounds

SAMPLE ID 860219 H20

FRACTION OZA TEST CODE M625 A
Date & Time Collected 04/10/86

VERIFIED BY LAK Category ANALYST DATE EXTRACTED 04/10/86 DATA FILE 2CU04070C02

TED Q	RESULT	Q	Q	N	ON	S		
COMPOUNDS DETECTEDO	9	4-nitrophenol	2, 4-dinitrophenol	initrophenol	pentachlorophenol	phenol		
	COMPOUND	4	2, 4-4	2-methyl-4, 6-dinitrophenol	pented			
E E	EPA	<b>28</b>	39A	<b>604</b>	64A	63A		
INSTRUMENT	SCAN							
<b>→</b>	NPDES SCAN	78	ď ď	4	4	10A		
9		 ⊆l	2 2	9	 2	 영	 달	
04/22	RESULT	N O	Z	Z	Z	Z	Z	
DAIE INJECIED <u>U4/22/88</u>		eno1	eno1	eno1	enol	eno1	eno1	
		or op	hylph	oroph	oroph	ny 1 ph	troph	
DAIR	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2, 4-dimethylphenol	2-nitrophenol	
1		•	•					
	EPA	21A	22A	24A	314	34A	57A	
		••	•		V	()	•,	
	NPDES SCAN	114	8	41	2A	ЭА	<b>6</b> A	
3	Ž			4	3	39		

SURROGATE RECOVERIES

RESULT	d5-phenol 84%	2-fluorophenol 67%	phenol 69%	d3-phenol
COMPOUND	-6P	2-fluoro	2, 4, 6—tribromophenol	-EP
SCAN CODE	437 AS1	299 AS2	1094 AS3	AS4

SCAN = scan number or retention time on chromatogram. NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified All results reported in

RECEIVED: 04/10/86

Serv REPORT RESULTS by Sample Analytical Serv

LAB # 86-04-070 Continued From Above

SAMPLE 1D 860219 H20

FRACTION 02A TEST CODE M625 A
Date & Time Collected 04/10/86

NAME Method 625 Acid Compounds

Category

11/26/84).

Minimum detection

ND = not detected at EPA detection limit method 625, (Federal Register, BL = detected in reagent blank; background subtraction not performed. J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1).

factor

limits should be multiplied by conc.

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Kasamoo Kaaid

RECEIVED: 04/10/86 PAGE 12

REPORT Analytical Serv

Results by Sample

LAB # 86-04-070

Q 욷 묏 2 S 2 9 윋 8 RESULT NAME Method 625 Base/Neutrals N-nitrosodimethylamine N-nitrosodi-n-propylamine bis(2-ethylheryl)phthalate dimethyl phthalate acenaphthylene N-nitrosodiphenylamine butyl benzyl phthalate di-butyl phthalate di-n-octyl phthalate disthyl phthalate benzo(a)pyrene benzo(a)anthracene chrysene benzo(b) fluoranthene anthracene benzo(k) fluoranthene Category COMPOUND TEST CODE M625 B Date & Time Collected 04/10/86 ANALYST INSTRUMENT 61B 66B EPA 62B 63B **67B 68B 869 708** 71B 72B 73B 74B 75B **76B 77B 788** NPDES SCAN 13B 1646 **26B** 1306 18B 2B 38 41B 15B 29B 24B 25B 43B 42B 田の eB 78 DATE EXTRACTED 04/10/86
DATE INJECTED 04/22/86 RESULT 물 月 2 물 S 뮏 물 뮏 S 月 밁 月 ᄝ 9 FRACTION OZA 2 2 acenaphthene benzidine 1, 4-dichlorobenzene 2, 4-dinitrotoluene 2,6-dinitrotoluene 1,2-diphenylhydrazine 408 4-chlorophenyl phenyl ether 1, 2, 4-trichlorobenzene hexachlorobenzene hexachloroethane bis(2-chloroethyl)ether 2-chloronaphthalene 1, 2-dichlorobenzene 1, 3-dichlorobenzene 3, 3'dichlorobenzidine fluoranthene COMPOUND DATA FILE <u>2CU04070C02</u> CONC. FACTOR 1 SAMPLE 1D 860219 H20 12B 18B **808** 25B **26B 27B** 28B 35B 36B 37B 39B EPA 18 80 88 86 NPDES SCAN 341 11B 21B 23B **27B** 28B **29B** 31B 17B 36B 22B **4B** 46B 33B 891 4

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Continued From Above

LAB # 86-04-070

Serv REPORT Results by Sample

Analytical Serv

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NAME Method 625 Base/Neutrals Category	benzo(ghi)perylene	fluorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1, 2, 3-cd)pyrene ND	ON energe				
FRACTION OZA TEST CODE M625 B Date & Time Collected 04/10/86	798	808	818	828	828	848				
TEST llected	88	32B	448	198	378	45B				
FRACTION <u>O2A</u> Date & Time Co	QZ	QN	QN	QV	QN	QN	QN	Q		
	4-bromophenyl phenyl ether	bis(2-chloroisopropy))ether	bis(2-chloroethoxy)methane	hexachlorobutadiene	hexachlorocyclopentadiene .	isophorone	naphthalene	nitrobenzene .	ES	RESULT
860219 H	418 4	42B bi	43B b	32B	23B	34B	55B	368	RECOVERI	SCAN CODE
SAMPLE ID 860219 H20	148	12B	108	34B	358	388	398	40B	SURROGATE RECOVERIES	SCAN

NOTES AND DEFINITIONS FOR THIS REPORT.

d5-nitrobenzene 110%

BS1

577

**BS2** 

863

342

**BS3** 

1462

**BS4** 

2-fluorobiphenyl 110%

d14-terphenyl 120%

d10-biphenyl

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). <u>uq/l</u> unless otherwise specified.  $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram All results reported in\_\_

benzo(a)anthracene and chrysene co-elute in high concentrations.

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SAMPLE ID 860219 HZN

Analytical Serv REPORT Results by Sample

LAB # 86-04-070 Continued From Above

NAME Method 625 Base/Neutrals

Category

Minimum detection

indicates dilution of sample if greater than one (1).

factor

limits should be multiplied by conc.

CONC. FACTOR:

J = estimated value; less than method detection limit.

BL = detected in reagent blank; background subtraction not performed. FRACTION 02A TEST CODE M625 B Date & Time Collected 04/10/86 B = anthracene and phenanthrene co-elute in high concentrations.

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Analytical Serv REPORT Results by Sample

LAB # 86-04-070

RECEIVED: 04/10/86

SAMPLE ID 860219 H20

FRACTION 02A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected 04/10/86 Category

VERIFIED BY LAK COMPOUNDS DETECTED \_\_\_\_ Ŧ ANALYST DATE EXTRACTED 04/10/86 DATE INJECTED 04/23/86 DATA FILE 2CU04070C02 CONC. FACTOR

QN	QN .	QN	QN	QN	S	S	S	Q	N	ON	9	
alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
102P	103P	104P	103P	106P	107P	108P	1096	110P	1111	112P	113P	
ស	ਲ 	 <del>4</del>	다 	1 18P	196	20p	216	1 22P	236	. 24P	1 25P	
N	N	S	N	N	S	N	Q	N	S	Q	N	Q
aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	endosulfan	endosulfan	an sulfate	endrin	n aldehyde	heptachlor	or epoxide
						alpha	beta	endosulf		endri		heptachlor
896	906	916	926	936	94P	936	96P	97P	98P	99P	100P	101P
4	10P	<b>6</b> 9	<u>م</u> 4	8	գ 44	111	12P	146	14P	15P	16P	17P
	89P aldrin ND ; 2P 102P alpha BHC	89P aldrin ND i 2P 102P alpha BHC 60P dieldrin ND i 3P 103P beta BHC	89P aldrin ND i 2P 102P alpha BHC 90P dieldrin ND i 3P 103P beta BHC 91P chlordane ND i 4P 104P gamma BHC	1P         89P         aldrin         ND         2P         102P         alpha BHC           1OP         90P         dieldrin         ND         3P         103P         beta BHC           6P         91P         chlordane         ND         4P         104P         gamma BHC           7P         92P         4.4.*-DDT         ND         3P         105P         delta BHC	1P         89P         aldrin         ND         2P         102P         alpha BHC           1OP         90P         dieldrin         ND         3P         103P         beta BHC           6P         91P         chlordane         ND         4P         104P         gamma BHC           7P         92P         4,4'-DDT         ND         1BP         106P         PCB-1242           8P         93P         4,4'-DDE         ND         1BP         106P         PCB-1242	1P         B9P         aldrin         ND         2P         102P         alpha BHC           10P         90P         dieldrin         ND         4P         103P         beta BHC           6P         91P         chlordane         ND         4P         104P         gamma BHC           7P         92P         4,4'-DDT         ND         1BP         105P         delta BHC           8P         93P         4,4'-DDE         ND         1BP         104P         PCB-1242           9P         94P         4,4'-DDD         ND         1BP         107P         PCB-1254	1P         89P         aldrin         ND         2P         102P         alpha BHC           10P         90P         dieldrin         ND         4P         103P         beta BHC           6P         91P         chlordane         ND         4P         104P         gamma BHC           7P         92P         4,4'-DDT         ND         1BP         105P         delta BHC           8P         93P         4,4'-DDE         ND         1BP         105P         PCB-1242           9P         94P         4,4'-DDD         ND         1PP         107P         PCB-1221           11P         95P         alpha endosulfan         ND         20P         108P         PCB-1221	1P         89P         aldrin         ND         2P         102P         alphe BHC           10P         90P         chlordane         ND         4P         104P         beta BHC           5P         91P         4P         104P         gamma BHC           7P         4A.4'-DDT         ND         18P         105P         felta BHC           8P         93P         4A.4'-DDE         ND         18P         PCB-1242           9P         94P         4A.4'-DDD         ND         19P         PCB-1221           11P         95P         alpha endosulfan         ND         2PP         109P         PCB-1232           12P         96P         109P         PCB-1232         PCB-1232         PCB-1232	1P         89P         aldrin         ND         2P         102P         alpha BHC           6P         90P         chlordane         ND         4P         104P         gamma BHC           7P         92P         4,4'-DDT         ND         18P         105P         delta BHC           8P         93P         4,4'-DDE         ND         18P         106P         PCB-1242           9P         94P         4,4'-DDD         ND         19P         107P         PCB-1234           11P         95P         alpha endosulfan         ND         20P         108P         PCB-1232           12P         96P         beta endosulfan sulfate         ND         22P         110P         PCB-124B	1P         89P         aldrin         ND         2P         102P         alpha BHC           6P         90P         dieldrin         ND         4P         103P         beta BHC           6P         91P         chlordane         ND         4P         104P         gamma BHC           7P         92P         4,4'-DDT         ND         18P         105P         PCB-1242           9P         94P         4,4'-DDD         ND         19P         PCB-1234           11P         95P         alpha endosulfan         ND         20P         108P         PCB-1232           12P         96P         beta endosulfan sulfate         ND         22P         110P         PCB-124B           14P         98P         97P         endosulfan sulfate         ND         23P         110P         PCB-124B	1P         89P         aldrin         ND         2P         102P         alpha BHC           6P         90P         chlordane         ND         4P         103P         beta BHC           7P         92P         chlordane         ND         18P         105P         delta BHC           8P         92P         4,4'-DDT         ND         18P         105P         PCB-1242           9P         94P         4,4'-DDD         ND         19P         107P         PCB-1254           11P         95P         alpha endosulfan         ND         20P         108P         PCB-1232           12P         96P         beta endosulfan         ND         22P         109P         PCB-1242           14P         97P         endosulfan sulfate         ND         22P         10PP         PCB-1248           14P         98P         endosulfan sulfate         ND         23P         11PP         PCB-1240	1P         99P         aldrin         ND         2P         102P         alpha BHC           6P         90P         chlordane         ND         4P         103P         beta BHC           7P         91P         chlordane         ND         4P         104P         gamma BHC           8P         92P         4.4'-bDT         ND         18P         105P         pcB-1242           9P         94P         4.4'-bDD         ND         19P         pcB-1234           11P         95P         alpha endosulfan         ND         20P         108P         pcB-1232           14P         95P         beta endosulfan sulfate         ND         22P         110P         pcB-124B           14P         97P         endosulfan sulfate         ND         22P         110P         pcB-124B           15P         97P         endosulfan sulfate         ND         23P         111P         pcB-124B           15P         97P         endosulfan sulfate         ND         24P         112P         pcB-124B           15P         97P         endosulfan sulfate         ND         24P         112P         pcB-124B

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'AGE 16 (ECEIVED: 04/10/86	AMPLE ID

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LAB # 86-04-070 Continued From Above

NAME Pesticides & PCBs by GC/NS

FRACTION 02A TEST CODE MS 608
Date & Time Collected 04/10/86

Category

AND DEFINITIONS FOR THIS REPORT. NOTES

All results reported in micrograms/liter SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit

method 625, (Federal Register, unless otherwise specified.

12/3/79).

## RADIAN

REPORT Results by Sample Analytical Serv

LAB # 86-04-070

RECEIVED: 04/10/86

SAMPLE ID Reagent Blank H20

FRACTION 03A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

Category

VERIFIED BY LAK 문 뮏 문 旲 밀 RESULT COMPOUNDS DETECTED 2-methyl-4, 6-dinitrophenol 4-nitrophenol 2, 4-dinitrophenol pentach lorophenol pheno1 COMPOUND 된 **60A** 64A EPA **584 39A** INSTRUMENT **63A** ANALYST NPDES SCAN 4 **₹** 4 10 P \$ DATE EXTRACTED 04/10/86 DATE INJECTED 04/22/86 윋 呈 月 S 旲 呈 RESULT 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2-chlorophenol 2, 4-dichlorophenol 2-nitrophenol 2, 4-dimethylphenol COMPOUND DATA FILE 2CB04064C05 22A 31A 34A EPA 214 24A **57A** CONC. FACTOR NPDES SCAN 114 8 **4**9 14 346

SURROGATE RECOVERIES

RESULT	d5-phenol71%	phenol 70%	phenol 57%	d3-phenol
COMPOUND	r D	2-fluorophenol_	2, 4, 6—tribromophenol_	<b>€9</b>
SCAN CODE	464 AS1	349 AS2	1094 AS3	AS4

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram All results reported in

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RECEIVED: 04/10/86

Serv REPORT Analytical Serv

LAB # 86-04-070 Continued From Above

SAMPLE ID Reagent Blank H20

FRACTION 03A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank; background subtraction not performed.

CONC. FACTOR: indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc. factor.

Minimum detection

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Analytical Serv Results by Sample

LAB # 86-04-070

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FRACTION 03A TEST CODE M625 B NAME Method 625 Base/Neutrals SAMPLE ID Reagent Blank H20

Specified Category	## VERIFIED BY LAK COMPOUNDS DETECTED 0	COMPOUND	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate ND	butyl benzyl phthalate ND	di-butyl phthalate ND	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A ND	benzo(a)pyrene ND	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A ND	acenaphthylene ND	anthracene B ND	
10	ANALYST INSTRUMENT	SCAN EPA	<b>61B</b>	62B	<b>829</b>	66B	678	<b>889</b>	869	70B	718	728	738	74B	75B	768	778	788	
ime Collected		NPDES	418	43B	42B	13B	158	26B	29B	24B	258	<b>8</b>	89	7.8	86	188	2B	38	
k IIMe C	04/10/86 04/22/86	RESULT	N O	S	Q.	QN	QN	Q	Q	Q	QN	Q	Q	QN	QN	QN	QN	Q	
nate	DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1, 3-dichlorobenzene	1,4-dichlorobenzene	3,3'dichlorobenzidine	2, 4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	nenyl phenyl ether	
	2CB04064CD5									1	<b></b>	1,	3, 3		. •	1,2		408 4-chlorophenyl	
	DATA FILE 20	SCAN EPA	81	SB	88	98	128	188	20B	258	26B	278	288	358	36B	37B	398	40B	
	DATA CONC. F	NPDES S	18	48	46B	338	36B	118	168	802 <b>4</b>	812 34	<b>%</b> 22B	238	27B	28B	29B	318	17B	

LAB # 86-04-070	Continued From Above
REPORT	s by Sample
Analytical Serv	Results
PAGE 20	RECEIVED: 04/10/86

9 S 2 문 FRACTION O3A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category benzo (ghi)perylene dibenzo(a, h) anthracene fluorene phenanthrene **79B BOB 818** 82B 88 32B 44B 19B 2 2 2 呈 4-bromophenyl phenyl ether 42B bis(2-chloroisopropyl)ether bis (2-chloroethoxy) methane hexachlorobutadiene SAMPLE ID Reagent Blank H20 41B 43B 52B 148 12B 10B 34B 月

indeno(1,2,3-cd)pyrene

838

37B

月

hexachlorocyclopentadiene

**33B** 

338

54B

388

35B

39B

**56B** 

40B

848

43B

뮏

isophorone

웆

naphthalene

月

nitrobenzene

2

pyrene

SURROGATE RECOVERIES

RESULT	d5-nitrobenzene 120%	2-fluorobiphenyl 100%	d14-terphenyl 82%	d10-biphenyl
SCAN CODE	590 BS1	864 BS2	1462 BS3	BS♠
ı	4 3	345	}	

NOTES AND DEFINITIONS FOR THIS REPORT.

= not detected at EPA detection limit method 625, (Federal Register, 10/26/84). ug/l unless otherwise specified. = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute SCAN = scan number or retention time on chromatogram All results reported in

= benzo(a)anthracene and chrysene co-elute in high concentrations

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RECEIVED: 04/10/86

SAMPLE ID Reagent Blank H20

Analytical Serv REPORT Results by Sample

FRACTION 03A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified

B = anthracene and phenanthrene co-elute in high concentrations.

Category

LAB # 86-04-070 Continued From Above

Minimum detection

= detected in reagent blank; background subtraction not performed

indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit. limits should be multiplied by conc. factor.

CONC. FACTOR:

350

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Analytical Serv REPORT Results by Sample

LAB # 86-04-070

SAMPLE ID Reagent Blank H20

FRACTION 03A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

COMPOUNDS DETECTED BY LAK	COMPOUND	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND	
ANALYST	NPDES SCAN EPA	2P 102P	3P 103P	4P 104P	5P 105P	18P 106P	19P 107P	20P 108P	21P 109P	22P 110P	23P 111P	24P 112P	25P 113P	
04/10/86 04/22/86	RESULT NE	QN	Q	Q	Q	Q	Q	QN	Q	Q	QN	Q.	Q	QN
DATE EXTRACTED DATE INJECTED	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-001	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor	heptachlor epoxide
DATA FILE <u>2CB04064C05</u> IC. FACTOR	SCAN EPA (	В9Р	906	916	92P	93P	94P	956	496	97P	<b>486</b>	466	100P	1016
DATA FILE CONC. FACTOR	NPDES 8	4	10P	<b>6</b> P	7.6	& 4	ֆ 35:	1116	12P	146	146	15P	16P	17P

## RADIAN Corporation

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Analytical Serv

Results by Sample

REPORT

LAB # 86-04-070

SAMPLE ID Reagent Blank H20

Category FRACTION 03A TEST CODE MS 608 N/ Date & Time Collected not specified

NAME Pesticides & PCBs by GC/MS Continued From Above

> AND DEFINITIONS FOR THIS REPORT NOTES

SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

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FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

Analytical Serv REPORT NonReported Work

LAB # 86-04-070

353

<u>Kasal maaaan sacacat aaaan maasaa maacat maacat lammat kasaa baraasa kasaa haca</u>

Austin

RAS

Page 1

Work Order # 86-04-084

Potential error for such low values ranges between 50 and 100%. specific matrix was not within acceptable limits indicating CONTACT CONDVER \* Indicates a value less than 5 times the detection limit. @ Indicates that spike recovery for this analysis on the 04, CERTIFIED BY 03, TEST CODES and NAMES used on this report -2nd column confirmation performed on 601 splits PREPARED Radian Analutical Services 602 splits 01, 02, 03, and 04 Austin, TX 78751 **8501 Mo-pac Bl** 3020 6010 stin REPORT 05/29/86 12:36:11 an interferent present. Footnotes and Comments 512-454-4797 graphite AA PO Box 9948 Digestion, method Digestion, method Chromium, ICPES Cadmium, ICPES ICPES # Interference Silver, ICPES Arsenic, BY PHONE Barium, ATTEN 303020 366010 CD E SAMPLES <u>under separate cover</u> General Dunamics SSAMPLE IDENTIFICATION Plant 4, USAF 212-027-27-40 ATTEN Larry French groundwater Received: 04/11/86 REPORT Radian Austin PLANT4 EC, EH EC, EH field blank trip blank 860223 860222 860224 10 TRANS TYPE 860226 FACILITY 860221 CL IENT COMPANY WORK ID TAKEN INVOICE # 0 4 

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METER

Beerest Reneg

Oil and grease, infrared

ONG IR PB G

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Mercuru, cold vapor

601

EPA method

EPA method 602

EP A 602 **EPA601** 

<u> Hudrocarbons</u>

Selenium, graphite AA

ead, graphite AA

# RADIAN

04/11/86	
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RAS

- Austin Results By Test

Work Order # 86-04-084

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1 Camala 01	
TECT CONE	

TEST CODE default units	Sample 01 (centered units)	Sample 02	Sample 03 (entered units)	Sample 04 (entered units)	Sample 05 (entered units)
AG_E	<. 002	0.002*	0.011		
45 <u>.</u> 6	<. 02	<. 002	*800.0		
BA E	0.067	0.045	0.093		
	0.002*	<. 002	0, 003*@		
	. c. 005	0.004	0.015*	0.012*	
DC3020	05/01/86	05/01/86	05/01/86		
date complete DG6010	05/01/86	05/01/86	05/01/86	05/01/86	
WHC IR	en anan	₽			₽
ONG IR		**			
	0.023	0.003*	0.036		
で <b>シ</b> ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・ ・	<. 03	0.003*	<. 003		

Page 3

tin Results by Sample Austin RAS

Work Order # 86-04-084

Received: 04/11/86

NAME EPA method 601 Category VERIFIED FRACTION 01A TEST CODE EPA601 Date & Time Collected 04/10/86 G UNITS RESULT DET LIMIT 0.030 0.52 0.25 0.070 0 10 0.050 0.030 0.12 0.10 N/A 0.13 0.080 밁 뫼 뮏 윋 뒫 윋 윋 뮏 뮏 뮏 윋 밁 뮏 밁 FILE # INJECTD 04/15/86 Vinyl chloride Chloroethane Methylene chloride 1, 1-Dichloroethene Chloroform 1, 2-Dichloroethane Chloromethane Bromomethane Trichlorofluoromethane 1, 1-Dichloroethane trans-1, 2-Dichloroethene 1, 1, 1-Trichloroethane Carbon tetrachloride Bromodichloromethane COMPOUND SAMPLE 1D 860221 107-06-2 74-87-3 74-83-9 75-01-4 75-00-3 75-09-2 75-34-3 156-60-5 E-99-19 71-55-6 56-23-5 75-69-4 75-35-4 75-27-4 CAS# ANALYST INSTRMT 356

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Page 4
Received: 04/11/86
SAMPLE ID 860221
Bate & Time Collected 04/10/86

Received: 04/10/86

REPORT
Work Order # 86-04-084
Continued From Above
Category

Category																		
Date & Time Collected 04/10/86	RESULT DET LIMIT	ND 0.040	ND 0.34	ND 0. 12	060 O QN	ND 0.020	ND 0.20	ND 0. 13	ND 0. 20	0. 030 ON	ND 0 030	ND 0.25	ND 0. 32	ND 0.15	ND 0.24		98 % Recovery	78# % Recovery
Date & Time	COMPOUND RE	1,2-Dichloropropane	trans-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1, 1, 2-Trichloroethane	cis-1,3-Dichloropropene	2-Chloroethylvinyl ether	Втомовотм	1, 1, 2, 2-Tetrachloroethane	Tetrachloroethene	Chlorobenzene	1, 3-Dichlorobenzene	1, 2-Dichlorobenzene	1,4-Dichlorobenzene	SURROGATES	Bromochloromethane	2-Bromo-1-chloropropane
	CAS#	78-87-5	10061-02-6	79-01-6	124-48-1	79-00-5	10061-01-5	110-75-8	75-25-2	79-34-5	127-18-4	108-90-7	541-73-1	95-50-1	106-46-7		74-97-5	3017-95-6

% Recovery

1-4-Dichlorobutane

110-56-5

Page 5 Received: 04/11/86

RAS

SAMPLE ID 860221

460-00-4

Austin RePORT Results by Sample

Work Order # 86-04-084 Continued From Above

NAME EPA method 601 Category

FRACTION 01A TEST CODE EPA601 Date % Time Collected 04/10/86 % Recovery 1-Bromo-4-fluorobenzene

ND = not detected at detection limit NOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

NA = not analyzed

\* = less than 5 times the detection limit

N\A= not available

Received: 04/11/86 Page 6

Austin RAS

REPORT Results by Sample

Work Order # 86-04-084

SAMPLE 10 860221

FRACTION O1B TEST CODE EPA602 Date & Time Collected 04/10/86

NAME EPA method 602

Category

VERIFIED

뮙 ANALYST INSTRMT

FILE #

INJECTED 04/14/84

UNITS

CAS#

RESULT DET LIMIT COMPOUND

Benzene

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

541-73-1

359

95-50-1

0. 20

뮏

Toluene

0.20

2

Ethylbenzene

Chlorobenzene

0.20

0. 20 뮏

0.30

뮏

1,4-Dichlorobenzene

1, 3-Dichlorobenzene

0.40

윋

0.40 S

1, 2-Dichlorobenzene

SURROGATES

106% recovery

a, a, a-Trifluorotoluene

8-80-86

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed \* = less than 5 times the detection limit

N\A = not available

SANDA CONTRACTOR OF THE SANDA CONTRACTOR OF THE 
FRACTION OIC TEST CODE HG C Date % Time Collected 04/10/86 stin Results by Sample - Austin RAS Page 7 Received: 04/11/86 SAMPLE ID 860221

NAME Mercury, cold vapor Category

Work Order # 86-04-084

VERIFIED

C ANALYST INSTRMT

ANALYZED 04/24/86

UNITS

RESULT DET LIMIT

ANALYTE

0.0002 S Mercury

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

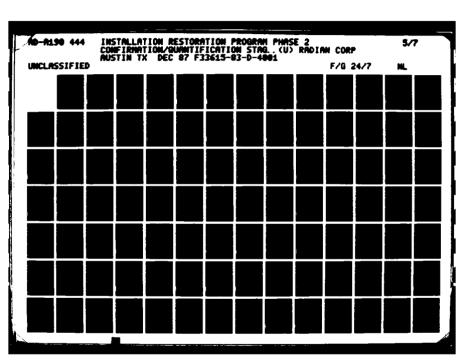
NA = not analyzed \* = less than 5 times the detection limitN\A = not avai able

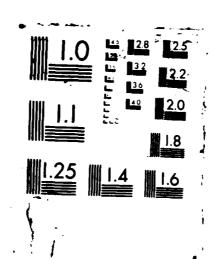
360

ROOM BEGEEGE ESSESSE DEBENDE FILLERE BENDEDE STEERES BELLERE BELLERE BERLERE

	<b>\$3636</b>		ternitation de la constitución d	******			odrosí.		Y TO X	(E) A (P. 6)	K-1435	6464	6-7-7-71	المتما		.y)**-	)** <u>}</u> **	**************************************
	Work Order # 86-04-084	NAME EPA method 601 Category	MCL WG/1															
<i>```</i>	REPORT by Sample	FRACTION 02A TEST CODE EPA601 Date & Time Collected 04/10/86	VERIFIED LE # G	RESULT DET LIMIT	ND 0 08	ND 1.18	ND 0. 18	ND 0.52	ND 0.25	QN	ND 0.13	ND 0.07	ND 0.10	ND 0.05	ND 0.03	ND 0.03	ND 0. 12	ND 0. 10
333333	)] ts	N OZA Time C	FILE	RES			-							-			•	
ACA ESSESS PROTECTION OF A CASE OF A	RAS - Austin Resi	FRACTIC Date &	INJECTD 04/14/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
	Page 8 Received: 04/11/86	SAMPLE ID 860222	ANALYST RP	CAS#	74-87-3	74-83-9	7501-4	£-00-52 <b>4</b>	2-60-52	15-69-4	75-35-4	75-34-3	156-60-5	67-66-3	107-06-2	71-55-6	56-23-5	75-27-4
	**************************************	55 8888666													<u> </u>	<u>elekir</u>		

Results by Sample  FRACTION O2A TEST CODE EPA601 NAME  Date & Time Collected 04/10/86  COMPOUND RESULT DET LIMIT  Toropropene ND 0.34  Toropropene ND 0.02  Toropropene ND 0.03  Toropropene ND 0.03  Toropropene ND 0.03  Toropropene ND 0.03  Toropenzene ND 0.03  Toropenzene ND 0.25  Toropenzene ND 0.24  Toropenzene ND 0.24  Toropenzene ND 0.25	a.	6	RAS - Austin		REPURT	Mork Order # 86-04-084
PRACTION 02A TEST CODE EPA601 NAME EPA	6	ved: 04/11/86		ts by	mple	Continued From Above
CAS#       COMPOUND       RESULT       DET LIMIT         78-87-5       1,2-Dichloropropane       ND       0.04         10061-02-6       trans-1.3-Dichloropropene       ND       0.02         79-01-6       Trichloroethene       ND       0.02         124-48-1       Dibhromochloromethane       ND       0.02         10061-01-5       (is-1.3-Dichloropene       ND       0.02         110-75-8       2-Chloroethylvinyl ether       ND       0.20         75-25-2       Bromoform       ND       0.02         127-18-4       Tetrachloroethene       ND       0.02         127-18-4       Tetrachloroethene       ND       0.02         18-0-73       1,1,2,2-Tetrachloroethene       ND       0.02         541-73-1       1,3-Dichlorobenzene       ND       0.25         95-50-1       1,2-Dichlorobenzene       ND       0.24         95-50-1       1,4-Dichlorobenzene       ND       0.24         8uRROcates       103 x Recovery         100-46-7       1,4-Dichloromethane       103 x Recovery         100-75-8       2-Bromochloropotane       123 x Recovery	പ	E 1D 860222	FRACTION Date & T	OZA TE	ST CODE EPA601 cted 04/10/86	EPA .
78-87-5         1.2-Dichloropropane         ND           10061-02-6         trans-1.3-Dichloropropene         ND           79-01-6         Trichloroethene         ND           124-48-1         Dibromochloromethane         ND           10061-01-5         (i.1.2-Trichloroethane         ND           110-75-8         2-Chloroethylvinyl ether         ND           75-25-2         Bromoform         ND           127-18-4         Tetrachloroethane         ND           127-18-4         Tetrachloroethene         ND           127-18-4         Tetrachloroethene         ND           108-90-7         Chlorobenzene         ND           541-73-1         1, 3-Dichlorobenzene         ND           95-50-1         1, 4-Dichlorobenzene         ND           106-46-7         1, 4-Dichlorobenzene         ND           3017-95-6         2-Bromochloromethane         1193 % Recov           3017-95-6         2-Bromo-1-chloropropane         1193 % Recov           110 56-5         2-Bromo-1-chlorobropane         2-Bromo-1-chloropropane         2 Recov		CAS#	COMPOUND	RESULT	DET LIMIT	
10061-02-6		78-87-5	1,2-Dichloropropane	N	0.04	
79-01-6         Trichloroethene         ND           124-48-1         Dibromochloromethane         ND           79-00-5         1,1,2-Trichloroethane         ND           10061-01-5         cis-1,3-Dichloropropene         ND           75-25-2         Bromoform         ND           79-34-5         1,1,2,2-Tetrachloroethane         ND           127-18-4         Tetrachloroethane         ND           108-90-7         Chlorobenzene         ND           541-73-1         1,3-Dichlorobenzene         ND           106-46-7         1,4-Dichlorobenzene         ND           50-50-1         1,4-Dichlorobenzene         ND           50-7-46-7         1,4-Dichloropenzene         ND           50-7-46-7         1,4-Dichloropenzene         ND           50-7-46-7         1,4-Dichloropenzene         ND           50-7-46-7         1,4-Dichloropenzene         ND           74-97-5         Bromochloromethane         103 % Recov           3017-95-6         2-Bromo-1-chloropropenzene         119 % Recov           110 56-5         1-4-Dichlorobutane         % Recov		10061-02-6	trans-1,3-Dichloropropene	QN	0.34	
124-48-1       Dibtromochloromethane       ND         79-00-5       1,1,2-Trichloroptopene       ND         10061-01-5       cis-1,3-Dichloropropene       ND         110-75-8       2-Chloroethylvinyl ether       ND         79-34-5       1,1,2,2-Tetrachloroethane       ND         127-18-4       Tetrachloroethane       ND         108-90-7       Chlorobenzene       ND         541-73-1       1,3-Dichlorobenzene       ND         106-46-7       1,4-Dichlorobenzene       ND         106-46-7       1,4-Dichloropenzene       ND         3017-95-6       2-Bromochloromethane       1193 % Recov         3017-95-6       2-Bromo-1-chloropropane       1193 % Recov         310 56-5       1-4-Dichlorobutane       % Recov		79-01-6	Trichloroethene	QN	0.12	
79-00-5       1,1,2-Trichloroethane       ND         10061-01-5       cis-1,3-Dichloroptopene       ND         110-75-8       2-Chloroethylvinyl ether       ND         75-25-2       Bromoform       ND         79-34-5       1,1,2,2-Tetrachloroethane       ND         127-18-4       Tetrachloroethene       ND         108-90-7       Chlorobenzene       ND         541-73-1       1,3-Dichlorobenzene       ND         106-46-7       1,4-Dichlorobenzene       ND         SURROGATES       A-4-7-5       Bromochloromethane       103 % Recov         3017-95-6       2-Bromo-1-chloropropane       119 % Recov         110 56 5       1-4-Dichlorobutane       % Recov		124-48-1	Dibromochloromethane	QN	0.08	
10061-01-5       cis-1,3-Dichloropropene       ND         110-75-8       2-Chloroethylvinyl ether       ND         75-25-2       Bromofarm       ND         127-18-4       Tetrachloroethene       ND         108-90-7       Chlorobenzene       ND         541-73-1       1,3-Dichlorobenzene       ND         95-50-1       1,2-Dichlorobenzene       ND         106-46-7       1,4-Dichlorobenzene       ND         SURROGATES       SURROGATES         74-97-5       Bromochloromethane       103 % Recov         3017-95-6       2-Bromo-1-chloropropane       119 % Recov         110 56-5       1-4-Dichlorobutane       % Recov		79-00-5	1, 1, 2-Trichloroethane	Q	0.02	
110-75-8		10061-01-5	cis-1,3-Dichloropropene	QN	0.20	
75-25-2       Bromoform       ND         79-34-5       1,1,2,2-Tetrachloroethane       ND         127-18-4       Tetrachloroethane       ND         108-90-7       Chlorobenzene       ND         541-73-1       1,3-Dichlorobenzene       ND         95-50-1       1,2-Dichlorobenzene       ND         106-46-7       1,4-Dichlorobenzene       ND         3017-95-6       Bromochloromethane       103 % Recov         3017-95-6       2-Bromo-1-chloropropane       119 % Recov         110 56 5       1-4-Dichlorobutane       % Recov		110-75-8	2-Chloroethylvinyl ether	QN		
79-34-5       1,1,2,2-Tetrachloroethane       ND         127-18-4       Tetrachloroethane       ND         108-90-7       Chlorobenzene       ND         541-73-1       1,3-Dichlorobenzene       ND         95-50-1       1,2-Dichlorobenzene       ND         106-46-7       1,4-Dichlorobenzene       ND         3017-95-6       Bromochloromethane       103 % Recov         3017-95-6       2-Bromo-1-chloropropane       119 % Recov         110 56-5       1-4-Dichlorobutane       % Recov	A	75-25-2	Bromoferm	Q	0.20	
127-18-4       Tetrachloroethene       ND         108-90-7       Chlorobenzene       ND         541-73-1       1, 3-Dichlorobenzene       ND         95-50-1       1, 2-Dichlorobenzene       ND         106-46-7       1, 4-Dichlorobenzene       ND         3017-95-6       Bromochloromethane       103 % Recov         3017-95-6       2-Bromo-1-chloropropane       119 % Recov         110 56:5       1-4-Dichlorobutane       % Recov	20	79-34-5	1, 1, 2, 2—Tetrachloroethane	QN	0.03	
Chlorobenzene ND  1, 3-Dichlorobenzene ND  1, 4-Dichlorobenzene ND  SURROGATES  Bromochloromethane 103 % Recov 2-Bromo-1-chloropropane 119 % Recov	o	127-18-4	Tetrachloroethene	S	0.03	
1,3-Dichlorobenzene ND 1,2-Dichlorobenzene ND 1,4-Dichlorobenzene ND SURROGATES Bromochloromethane 103 % Recov 2-Bromo-1-chloropropane 119 % Recov		108-90-7	Chlorobenzene	QN	0.25	
1,2-Dichlorobenzene ND  1,4-Dichlorobenzene ND  SURROGATES  Bromochloromethane 103 % Recov  2-Bromo-1-chloropropane 119 % Recov		541-73-1	1,3-Dichlorobenzene	Q	0.32	
SURROGATES  Bromochloromethane 103 % Recover  2-Bromo-1-chloropropane 119 % Recover		95-50-1	1, 2-Dichlorobenzene	N	0.15	
SURROGATES  Bromochloromethane 103 % 2-Bromo-1-chloropropane 119 % 1-4-Dichlorobutane %		106-46-7	1,4-Dichlorobenzene	QN	0.24	
Bromochloromethane 103 % 2-Bromo-1-chloropropane 119 % 1-4-Dichlorobutane %			SURROGATES			
2-Bromo-1-chloropropane 119 % 1-4-Dichlorobutane %		74-97-5	Bromochloromethane _	×	ecovery	
1-4-Dichlorobutane		3017-95-6	2-Bromo-1-chloropropane	×	ecovery	
		110-56-5	1-4-Dichlorobutane	, R	ecovery	





Page 10

Received: 04/11/86

SAMPLE 1D 860222

- Austin RAS

stin Results by Sample

Work Order # 86-04-084 Continued From Above

NAME EPA method 601 Category

FRACTION OZA TEST CODE EPA601 Date & Time Collected 04/10/86

% Recovery

1-Bromo-4-fluorobenzene

460-00-4

\* = less than 5 times the detection limit

N\A= not available

363

NA = not analyzed

ND = not detected at detection limit

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

RADIAR

Received: 04/11/86 Page 11

- Austin RAS

stin Results by Sample

Work Order # 86-04-084

**SAMPLE ID 860222** 

NAME EPA method 602

FRACTION 02B TEST CODE EPA602 Date & Time Collected 04/10/86

Category

MC L VERIFIED

FILE #

INJECTED 04/14/86

RP

ANALYST INSTRMT CAS#

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

364

541-73-1

95-50-1

UNITS

COMPOUND RESULT DET LIMIT 0. 20

밁

Benzene

0. 20

Toluene

0.20

2

Ethylbenzene

0.20

밁

Chlorobenzene

0.30

2

1,4-Dichlorobenzene

0.40

2

1, 3-Dichlorobenzene

1, 2-Dichlorobenzene

0.40

S

SURROGATES

103% recovery a, a, a-Trifluorotoluene

NOTES AND DEFINITIONS FOR THIS REPORT.

8-80-86

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit

N\A = not available

SECOND DESCRIPTION 
## RADIAN

Received: 04/11/86 Page 12

- Austin RAS

stin Results by Sample

Work Order # 86-04-084

SAMPLE 1D 860222

FRACTION O2C TEST CODE HG C Date & Time Collected 04/10/86

NAME Mercury, cold vapor

Category

VERIFIED

UNITS

RESULT DET LIMIT

ANALYTE

ANALYZED 04/24/86

ANALYST INSTRMT

0.0002

0.0020

Mercury

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

 $\star$  = less than 5 times the detection limit N/A = not available

365 4

NEWSTAND SOUTHLY REPLIES SERVICES FLEENING BOTTOM RENDERS DECEMBED

K3555555

RAS Received: 04/11/86

Page 13

Austin

stin Results by Sample

Work Order # 86-04-084

FRACTION 03A TEST CODE EPA601 Date & Time Collected 04/10/86 SAMPLE 1D 860223

NAME EPA method 601 Category VERIFIED G UNITS FILE 0 ANAL YST

NO.	DET LIMIT	0.08	1.18	0.18	0.52	0.25	Q
<b>*</b>	RESULT	QN	QN	20.4	Ž	QN	QN
INJECTD 04/15/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane
INSTRMT 6	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	75-09-2	75-69-4
E Z Jojska	er en ve	to arts arts	en er	والمتعودة	<b>4</b>		66 XX

Trichlorofluoro	75-69-4
. Methylene c	75-09-2
Chlor	75-00-3
Vingl c	75-01-4
Втомо	74-83-9
Chloro	74-87-3

	Q	Bromodichloromethane	75-27-4
ı	QN	Carbon tetrachloride	56-23-5
1	Q	1, 1, 1-Trichloroethane	71-55-6
1	QN	1,2-Dichloroethane	2-90-20
i	Q	Chloroform	67-66-3
i	QN	trans-1,2-Dichloroethene	2-09-95
ı	Q	1, 1-Dichloroethane	75-34-3

0.10

0.07

뮏

1, 1-Dichloroethene

75-35-4

0.05

0,03

KKKA KKKA BESER WASSE SANSE KESKA BESER BESER BESER BESER BESER

0.10

0.12

0.03

C	Work Order # 86-04-084 Continued From Above	NAME EPA method 601 Category																				
	tin Results by Sample	FRACTION 03A TEST CODE EPA601 Date & Time Collected 04/10/86	RESULT DET LIMIT	ND 0.04	ND 0.34	46.3 0.12	ND 0.09	ND 0 05	ND 0.20	QN	ND 0.20	ND 0. 03	ND 0.03	ND 0.25	ND 0.32	ND 0.15	ND 0.24		105 % Recovery	114 % Recovery	% Recovery	
	RAS - Austin Resu	FRACTION 03A Date & Time	COMPOUND	1, 2-Dichloropropane	trans-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1, 1, 2-Trichloroethane	cis-1,3-Dichloropropene	2-Chloroethylvinyl ether	Bromoform	1, 1, 2, 2-Tetrachloroethane	Tetrachloroethene	Chlorobenzene	1,3-Dichlorobenzene	1, 2-Dichlorobenzene	1, 4-Dichlorobenzene	SURROGATES	Bromochloromethane	2-Bromo-1-chloropropane	1-4-Dichlorobutane	
	S Page 14 S Received: 04/11/86	SAMPLE ID <u>860223</u>	CAS#	78-87-5	10061-02-6	79-01-6	124-48-1	2-00-62	10061-01-5	110-75-8	75-25-2	2-86-26	127-18-4	108-90-7	541-73-1	95-50-1	106-46-7	a de la composição de la c	74-97-5	3017-95-6	110-56-5	

Page 15 Received: 04/11/86

SAMPLE 1D 860223

460-00-4

stin Results by Sample

- Austin

RAS

Work Order # 86-04-084 Continued From Above

NAME EPA method 601 Category

FRACTION 03A TEST CODE EPA601 Date & Time Collected 04/10/86

% Recovery 1-Bromo-4-fluorobenzene

NOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT ND = not detected at detection limit

NA = not analyzed

\* = less than 5 times the detection limit N\A= not available

368

SECOND LIGHT SHOWN SHOWN SHOWN TO SHOW TO SHOW THE SECOND SHOWN SHOWN TO SHOW THE SHOW THE SHOWN THE SHOWN THE SHOWN THE SHOW THE SHOWN 
REPORT Work Order # 86-04-084 ample	FRACTION 03B TEST CODE EPA602 NAME EPA method 602 Date & Time Collected 04/10/86 Category
RAS - Austin Results by Sample	FRACTION 03B T Date & Time Colle
Page 16 Received: 04/11/86	SAMPLE ID 860223

VERIFIED MCL	D UNITSD	RESULT DET LIMIT	ND 0.20	.7 0.20	ND 0.20	ND 0.20	0.30 ON	ND 0. 40	ND 0.40
	*			ene 20.7					
	FILE :	COMPOUND	Benzene	Toluene	Ethylbenzene	Chlorobenzene	1, 4-Dichlorobenzene	1, 3-Dichlorobenzene	1,2-Dichlorobenzene
	Ϋ́I	CAS#	71-43-2	108-88-3	100-41-4	108-90-7	106-46-7	541-73-1	95-50-1
	ANALYST CL. INSTRMT D								

NOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

93% recovery

a, a, a-Trifluorotoluene

8-80-86

SURROGATES

ND = not detected at detection limit NA = not analyred

\* = less than 5 times the detection limit N\A = not available RECENT YOURSELD ACCRECATE THE TOTAL BOARD PONCES OF MANDEN FOR SAME ACCRECATE PROPERTY PROPERTY PROPERTY PROPERTY.

Received: 04/11/86 Page 17

SAMPLE 1D 860223

- Austin RAS

stin Results by Sample

FRACTION 03C TEST CODE HG C Date & Time Collected 04/10/86

NAME Mercury, cold vapor

Work Order # 86-04-084

Category

VERIFIED

UNITS US/MI

ANALYST INSTRMT

ANALYZED 04/24/86

RESULT DET LIMIT 0.0002 0004\*

Mercury

ANALYTE

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

\* = less than 5 times the detection limit N/A = not available NA = not analyzed

KSUNTUNTUNTU		naganakin dan dan dan dan d	in Gir din	CINCIP.	SPECIFIC	K POLITO		TOTAL		or-ur	JINGCY		CTMCTM	ne nev	<b>THUNK</b>	MCTAPE TH	rumanu ier.
Work Order # 86-04-084	NAME EPA method 601 Category	MCL uq/1															
REPORT Sample	04A TEST CODE EPA601 ime Collected 04/10/86	VERIFIED #	T DET LIMIT	D 40	290	<u> </u>	092 QN	130	<u>a</u> N <u>a</u>	<u> </u>	40	20	30 an	ND 20	ND 20	09 an	ND 20
REP Its by Sample		FILE	RESULT	QN	QN	Q	Z	Z	QN	QN	QN	QN	Z	Z	Z	Z	Z
RAS - Austin Resul	FRACTION Date & Ti	INJECTD 04/15/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
Page 18 Received: 04/11/86	SAMPLE 1D 860224	ANALYST RP	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	2-60-52	72-69-4	75-35-4	75-34-3	156-60-5	67-66-3	107-06-2	71-55-6	56-23-5	75-27-4
	SAMPLE	AN PANALANANANANANANANANANANANANANANANANANA	enere	`&&&&	10000	ر بوزون		4 3			\$*}\*\*\*\*\					م ماران ماران	•

### RADIAN

	Work Order # 86-04-084 Continued From Above	EPA601 NAME EPA method 601 0/86 Category																				
	tin Results by Sample	FRACTION 04A TEST CODE EPA601 Date & Time Collected 04/10/86	RESULT DET LIMIT	ND 20	ND 170	5508 60	ND 20	OI ON	ND 100	QN	ND 100	ND 20	ND 20	130	ND 160	ND 75	ND 120		119 % Recovery	137# % Recovery	% Recovery	)
CORPORATION	RAS - Aus	FRACTION Date & T	COMPOUND	1,2-Dichloropropane	trans-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1, 1, 2-Trichloroethane	cis-1,3-Dichloropropene	2-Chloroethylvinyl ether	Втомоfотм	1, 1, 2, 2-Tetrachloroethane	Tetrachloroethene	Chlorobenzene	1,3-Dichlorobenzene	1,2-Dichlorobenzene	1,4-Dichlorobenzene	SURROGATES	Bromochloromethane	2-Bromo-1-chloropropane	1-4-Dichlorobutane	
200	ige 19 :ceived: 04/11/86	MPLE ID 860224	CAS#	78-87-5	10061-02-6	79-01-6	124-48-1	79-00-5	10061-01-5	110-75-8	75-25-2	79-34-5	127-18-4	108-90-7	541-73-1	95-50-1	106-46-7		74-97-5	3017-95-6	110-56-5	)

Page 20 Received: 04/11/86

RAS

SAMPLE 1D 860224

- Austin

stin Results by Sample

Work Order # 86-04-084 Continued From Above

FRACTION 04A TEST CODE EPA601 Date & Time Collected 04/10/86

NAME EPA method 601 Category

1-Bromo-4-fluorobenzene 460-00-4

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

\* = less than 5 times the detection limit N/A= not available

373

Page 21 Received: 04/11/86	RAS -	Austin Results by Sample	REPORT Sample	Work Order # 86-04-084
SAMPLE ID 860224		FRACTION <u>04B</u> Date & Time Col	FRACTION 04B TEST CODE EPA602 Date & Time Collected 04/10/86	NAME EPA method 602 Category

VERIFIED MCL	D UNITSUQ/1	ET LIMIT	0.20	0. 20	0.20	0. 20	0.30	0.40	0.40	
VE		RESULT DET LIMIT	QN	Q	Q	17.7	Q	QN	QN	
	FILE # _	COMPOUND	Benzene	Toluene	Ethylbenzene	Chlorobenzene	1,4-Dichlorobenzene	1, 3-Dichlorobenzene	1,2-Dichlorobenzene	SURROGATES
	JACNI	CAS#	71-43-2	108-88-3	100-41-4	108-90-7	106-46-7	541-73-1	95-50-1	
	ANAL YST CL INSTRMT D					4	3	74		

106% recovery

a, a, a-Trifluorotoluene

8-80-86

ND = not detected at detection limit NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

\* = less than 5 times the detection limit N\A = not available NA = not analyzed

Austin Results by Sample RAS

Work Order # 86-04-084

Page 22 Received: 04/11/86

SAMPLE ID field blank

FRACTION 06A

NAME EPA method 601 TEST CODE EPA601

75-34-3 1, 1-Dichloroethane 156-60-5 trans-1, 2-Dichloroethene 67-66-3 1, 2-Dichloroethane 107-06-2 1, 1-Dichloroethane 71-55-6 1, 1, 1-Trichloroethane 56-23-5 Carbon tetrachloride	ethene ND roform ND ethane ND	0. 03 0. 03 0. 12 0. 03	
75-27-4 Bromodichloromethane	ne ND	0.10	



SAMPLE ID field blank  CAS#  78-87-5  10061-02-6  79-01-6  124-48-1  79-01-5  10061-01-5  127-18-4  108-90-7  541-73-1  95-50-1  106-46-7  3017-95-6
--

SECOLUTION CONTRACTOR 
25.55.55.55

ESTER

SAMPLE ID field blank Page 24 Received: 04/11/86

RAS

- Austin

stin Results by Sample

Work Order # 86-04-084 Continued From Above NAME EPA method 601 ed Category

FRACTION 06A TEST CODE EPA601 NA Date & Time Collected not specified % Recovery 1-Bromo-4-fluorobenzene 460-00-4

NOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

\* = less than 5 times the detection limit

N\A≕ not available

**ESSENTE** 1585

- Austin RAS SAMPLE ID field blank Page 25 Received: 04/11/86

REPORT Results by Sample

Category

Work Order # 86-04-084

FRACTION 06B TEST CODE EPA602 NAME EPA method 602 Date & Time Collected not specified Category

UNITS VERIFIED FILE INJECTED 04/14/86 리

RESULT DET LIMIT COMPOUND CAS# 71-43-2

INSTRMT ANAL YST

0.20 0. 20 윋 Benzene

108-88-3

100-41-4

108-90-7

106-46-7

378

541-73-1

95-50-1

S 0.99 Tolvene Ethy 1 benzene

0. 20 Chlorobenzene

0.30 0.20 2 S

1, 4-Dichlorobenzene

1, 3-Dichlorobenzene

1, 2-Dichlorobenzene

0.40 0.40 2

S

SURROGATES

a, a, a-Trifluorotoluene

8-80-86

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit NA = not analyzed \* = less than 5 times the detection limit N\A = not available Page 26 Received: 04/11/86

RAS

Work Order # 86-04-084

SAMPLE ID trip blank

- Austin REPORT Results by Sample

FRACTION 07A TEST CODE EPA601 NAME EPA method 601 Date & Time Collected not specified Category

VERIFIED MCL G UNITS U9/1							,								
,	DET LIMIT	0.08	1.18	0.18	0.52	0.25	N	0.13	0.07	0.10	0.05	0.03	0.03	0.12	0.10
FILE #	RESULT	QN	QN	Q	QN	N	QN	N	N	Q	N	ND	Q	N	Q
INJECTD <u>04/15/86</u>	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1, 1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
ST RP	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	75-09-2	75-69-4	75-35-4	75-34-3	156-60-5	67-66-3	107-06-2	71-55-6	56-23-5	75-27-4
ANALYST					4	4 3	379	}							

# CORPORATION

Work Order # 86-04-084

REPORT

- Austin

RAS

Page 27

Continued From Above NAME EPA method 601 Category FRACTION O7A TEST CODE EPA601 N Date & Time Collected not specified RESULT DET LIMIT 0.03 0.03 0.25 0.34 0.12 0.09 0.02 0.20 0.20 0.32 0.15 0.24 0.04 103 % Recovery 118 % Recovery % Recovery Results by Sample 윋 S S 윋 S 윋 밁 S 2 욷 2 2 윋 Q **Bromochloromethane** Bromoform 1, 4-Dichlorobenzene SURROGATES 2-Bromo-1-chloropropane 1-4-Dichlorobutane 1, 2-Dichloropropane trans-1, 3-Dichloropropene Dibromochloromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene 2-Chloroethylvinyl ether 1, 1, 2, 2-Tetrachloroethane Tetrachloroethene Chlorobenzene 1, 3-Dichlorobenzene 1,2-Dichlorobenzene Trichloroethene COMPOUND SAMPLE ID trip blank Received: 04/11/86 74-97-5 110-56-5 79-34-5 127-18-4 3017-95-6 78-87-5 10061-01-5 110-75-8 75-25-2 10061-02-6 79-01-6 124-48-1 79-00-5 108-90-7 541-73-1 95-50-1 106-46-7 CAS# 380

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Page 28 Received: 04/11/86

RAS

Results by Sample Austin

REPORT

Work Order # 86-04-084 Continued From Above

SAMPLE ID trip blank

FRACTION O7A TEST CODE EPA601 NA Date & Time Collected not specified

% Recovery

1-Bromo-4-fluorobenzene

460-00-4

NAME EPA method 601 ed Category

NOTES AND DEFINITIONS FOR THIS REPORT.

\* = less than 5 times the detection limit ND = not detected at detection limit NA = not analyzed

N\A= not available

RAIDIM.

Page 29 Received: 04/11/86

tin Results by Sample Austin RAS

Work Order # 86-04-084

SAMPLE ID trip blank

FRACTION 07B TEST CODE EPA602 NAME EPA method 602

Category HCL UNITS Date & Time Collected not specified VERIFIED FILE # INJECTED 04/15/86 김 ANALYST INSTRMT

月 Benzene

COMPOUND RESULT DET LIMIT

CAS#

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

382

541-73-1

0.20

0.20 0.53 Toluene

0.20 윋 Ethylbenzene

0. 20 月 Chlorobenzene

0.30 0.40 윋 皇 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene

2 1,2-Dichlorobenzene 95-50-1

0.40

SURROGATES

103% recovery a, a, a-Trifluorotoluene 8-80-86

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit

TOLOGOLI CERCONI POPOSONI SOSONOLI DOPOSONI DOSONOLI SOSONOLI SOSONOLI DECOCOLI DEPOSONI DOSONONI I

N/A = not available

LAB # 86-04-085	CERTIFIED BY  CONTACT ERENCH		ranges between	this engites on the ptable limits indicating	on this report
Serv REPORT 09/09/86 10:40:54	PREPARED Radian Analutical Services BY 8501 MoPac Blvd. P. O. Box 9948 Austin, Texas 78766 ATTEN PHONE (512) 454-4797	Dublicate of report of 06/20/86. Footnotes and Comments	* Indicates a value less than 5 times the detection limit. So and 100%.	w indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.	Analytical Serv TEST CODES and NAMES used on this report Ex 625 Extraction only - 625 BN/A M625 A Method 625 Acid Compounds M625 B Method 625 Base/Neutrals Method 625 Base/Neutrals Ms 608 Pesticides & PCBs by GC/MS
PAGE 1 RECEIVED: 04/12/86 09/0	REPORT Radian Corporation  TO Larry French Austin, Texas  ATTEN  CLIENT PLANT 4  COMPANY General Dunamics FACILITY OEHL Plant 4, Bldg 4	Ground Water 4/10/86 Johnson/W. Hise	TRANS Fed Ex 736761401  TYPE H20 P. 0. # 212-027-27-40 INV. # 8103	383	SAMPLE IDENTIFICATION  O1 860223 H20  O2 860221 H20  O3 860221 DVP Analysis H20  O4 860223 Matrix Spike H20  O4 Method Spike H20  O5 Reagent Blank H20

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46E 2 ECEIVED: 04/12/86	TEST CODE : Sample 01	EX 625   04/14/86
Analytical Serv RESULTS BY TEST		5 04/14/86
REPORT By Test	Sample 02 Sample 03 Sample 04 Sample 05 sentered units) (entered units) (entered units)	04/14/86
LAB # 86-04-085	Sample 04 (entered units)	04/14/86
-085	Sample 05	04/14/86

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RECEIVED: 04/12/86

Results by Sample Analytical Serv

REPORT

LAB # 86-04-085

SAMPLE ID 860223 H20

FRACTION 01A TEST CODE M625 A Date & Time Collected 04/10/86

NAME Method 625 Acid Compounds Category

DATA FILE 20004085001

**ANALYST** 

VERIFIED BY LAK COMPOUNDS DETECTED

CONC. FACTOR

DATE EXTRACTED 04/14/86 DATE INJECTED 04/22/86

INSTRUMENT

月

4-nitrophenol

RESULT

COMPOUND

EPA

NPDES SCAN

RESUL.T

COMPOUND

**28** 

7

9

2, 4, 6-trichlorophenol

4-chloro-3-methylphenol

**39A** 

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9

2, 4-dinitrophenol

皇

2-methyl-4,6-dinitrophenol

**60A** 

4

윋

2-chlorophenol

64A

4

呈

ᄝ

pentachlorophenol

EPA 21A 22A 244 NPDES SCAN 8 11A 18

2, 4-dichlorophenol 314 34A **57A P** æ

385

2, 4-dimethylphenol 2-nitrophenol

453 10A

月

9

634

phenol

SURROGATE RECOVERIES

SCAN CODE

COMPOUND

d5-phenol

RESULT

2-fluorophenol

AS2

333

AS1

451

AS3

1093

2, 4, 6-tribromophenol

55

AS4

d3-phenol

SCAN = scan number or retention time on chromatogram AND DEFINITIONS FOR THIS REPORT. NOTES

ug/l unless otherwise specified. All results reported in

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PAGE 4 RECEIVED: 04/12/86

Analytical Serv

REPORT Results by Sample

LAB # 86-04-085

SAMPLE 1D 860223 H2D

Continued From Above

FRACTION OIA TEST CODE M625 A
Date & Time Collected 04/10/86

NAME Method 625 Acid Compounds

Category

Minimum detection

indicates dilution of sample if greater than one (1).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

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PAGE 5 RECEIVED: 04/12/86

Analytical Serv REPORT Results by Sample

LAB # 86-04-085

NAME Method 625 Base/Neutrals Catenni FRACTION OIA TEST CODE M625 B Date & Time Collected 04/10/86 SAMPLE 10 860223 H20

chrysene A chrysene A acenaphthylene B anthracene B
768 778 788
188 38 48 38 38
1,2-diphenylhydrazine fluoranthene rophenyl phenyl ether
37B 1,2-diphe 39B 40B 4-chlorophenyl
29B 3 31B 3 17B 4
THE RESIDENCE OF THE PROPERTY



LAB # 86-04-085 Continued From Above	NAME Method 625 Base/Neutrals Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a, h) anthracene ND	indeno(1,2,3-cd)pyrene ND	Durene ND								
RT	RACTION OIA TEST CODE M625 B late & Time Collected 04/10/86	79B	808	818	828	828	848								
REPORT Sample	TEST C	88	32B	44B	198	37B	43B								
Serv Results by Sample	N OIA Time Co	S S	Q	Ø	8	<u>S</u>	Ð	S.	QN			26	84	44	
Analytical Serv Resu	FRACTION 01A Date & Time	4-bromophenyl phenyl ether	bis(2-chloroisopropyl)ether	bis(2-chloroethoxy)methane	hexachlorobutadiene	hexachlorocyclopentadiene	isophorone	naphthalene	nitrobenzene		RESULT	d5-nitrobenzene	2-fluorobiphenyl_	d14-terphenyl_	d10-bipheny1_
14/12/86	360223 H20	41B 4-bro	428 bis(2-	43B bis(2	528	53B hexa	548	558	568	RECOVERIES	CODE	BS1	BSZ	BS3	BS4
PAGE 6 RECEIVED: 04/12/86	SAMPLE ID 860223 H20	14B	12B	108	348	35B	388	368 1	章 888	SURROGATE RECOVERIES	SCAN CODE	583	862	1460	

NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in uq/l unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). SCAN = scan number or retention time on chromatogram

= benzo(a)anthracene and chrysene co-elute in high concentrations. \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.

Analytical Serv

REPORT Results by Sample

LAB # 86-04-085 Continued From Above

PAGE 7 RECEIVED: 04/12/86

SAMPLE 1D 860223 H2D

limits should be multiplied by conc. factor.

NAME Method 625 Base/Neutrals = detected in reagent blank; background subtraction not performed. indicates dilution of sample if greater than one (1). FRACTION OIA TEST CODE M625 B
Date & Time Collected 04/10/86 B = anthracene and phenanthrene co-elute in high concentrations.J = estimated value; less than method detection limit. CONC. FACTOR:

Minimum detection

Category

(\* SOSSON, DODOGO BODGGA KSCSSSI BESERVE TESSESSE TESSESSE TESSESSE

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PAGE 8 RECEIVED: 04/12/86

Analytical Serv REPORT Results by Sample

LAB # 86-04-085

SAMPLE ID 860223 H20

NAME Pesticides & PCBs by GC/MS

FRACTION OIA TEST CODE MS 608
Date & Time Collected 04/10/86

Category

VERIFIED BY LAK COMPOUNDS DETECTED \_\_\_\_ 콬 ANALYST DATE EXTRACTED 04/14/86 DATE INJECTED 04/22/86 DATA FILE 2004085001 CONC. FACTOR

Ž

RESULT	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND	
COMPOUND													
SCAN EPA	102P	103P	104P	1036	106P	107P	108P	109P	110P	1116	112P	113P	
NPDES SCAN	& ~	e e	4	g 	186	196	206	- 21P		236	24P	1 25P	
<b>L</b>	_		-1		-	-1	_	-1			-		_
RESULT	Q	Q.	Q	S	S	S	S	Q	Q.	S	Z	9	2
COMPOUND RESULT	aldrin NE	dieldrin ND	chlordane ND	4, 4'-DDT	4, 4'-DDE ND	4, 4'-DDD ND	alpha endosulfan NE	beta endosulfan NE	endosulfan sulfate ND	endrin	endrin aldehyde NE	heptachlor ND	heotechlor epoxide Nr
		Irin	dane				endosulfan	endosulfan	sulfate		hyde	hlor	600x100

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PAGE 9 RECEIVED: 04/12/86

Serv REPORT Results by Sample Analytical Serv

LAB # 86-04-085 Continued From Above

NAME Pesticides & PCBs by GC/MS Category

SAMPLE ID 860223 H20

FRACTION OIA TEST CODE MS 608
Date & Time Collected 04/10/86

SCAN = scan number on chromatogram. AND DEFINITIONS FOR THIS REPORT. NOTES

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified

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RECEIVED: 04/12/86 PAGE 10

Analytical Serv

REPORT Results by Sample

LAB # 86-04-085

SAMPLE 10 860221 H20

FRACTION OZA TEST CODE M625 A Date & Time Collected 04/10/86

NAME Method 625 Acid Compounds Category

> 04/14/86 DATE INJECTED 04/24/86 DATE EXTRACTED DATA FILE 2004085002 CONC. FACTOR

ANAL YST

VERIFIED BY LAK

NPDES SCAN

INSTRUMENT

COMPOUNDS DETECTED

뮏

4-nitrophenol

RESULT

COMPOUND

EPA

NPDES SCAN

**584** 

7

**59A** 

S S

윋

2, 4-dinitrophenol

문

2-methyl-4, 6-dinitrophenol

**60A** 

4

64A

4

**63A** 

10A

9

2-nitrophenol

pentach lorophenol

윋

phenol

뮏 月 旲 S 旦 RESULT 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2-chlorophenol 2, 4-dichlorophenol 2, 4-dimethylphenol COMPOUND **21A 22A** 24A 34A 31A 11A BA 14 392

SURROGATE RECOVERIES

**57A** 

COMPOUND SCAN CODE d5-phenol AS1

457

82

RESULT

2-fluorophenol AS2 337

**AS4** 

AS3

1091

2, 4, 6-tribromophenol

d3-phenol

63

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram All results reported in

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Analytical Serv

REPORT Results by Sample

LAB # 86-04-085 Continued From Above

RECEIVED: 04/12/86

SAMPLE 1D 860221 H20

FRACTION OZA TEST CODE M625 A
Date & Time Collected 04/10/86

NAME Method 625 Acid Compounds

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank, background subtraction not performed. indicates dilution of sample if greater than one (1). value, less than method detection limit. limits should be multiplied by conc. J = estimated CONC. FACTOR:

fac tor

Minimum detection

393

KREKKEL ADADOOL LEGESSEL KISSISSEL DICKLISEL DIODOOLI DICKLISEL BISSISSEL BISSISSEL KREKKEELKESSISSELDIDD

RECEIVED: 04/12/86

REPORT Results by Sample Analytical Serv

LAB # 86-04-085

VERIFIED BY LAK 9 윋 밁 문 윋 뮏 9 S 밀 묏 밀 月 RESULT 12 BL NAME Method 625 Base/Neutrals COMPOUNDS DETECTED di-butyl phthalate N-nitrosodimethylamine N-nitrosodi-n-propylamine N-nitrosodiphenylamine bis(2-ethylhexyl)phthalate butyl benzyl phthalate di-n-octyl phthalate diethyl phthalate dimethyl phthalate benzo(a)pyrene acenaphthylene benzo (a) anthracene anthracene benzo(k)fluoranthene chrysene benzo(b)fluoranthene Category COMPOUND £2 TEST CODE M625 B Date & Time Collected 04/10/86 EPA 61B **9E9 66B** 67B INSTRUMENT 62B **889 69**B **708** 718 **72B** 73B **74B** 75B **76B 77B** ANAL YST **78B** NPDES SCAN 13B 1642 26B 1302 43B **29B** 24B 25B 38 41B 42B 15B **6**B 8 188 28 98 DATE EXTRACTED 04/14/86
DATE INJECTED 04/24/86 RESULT FRACTION 02A 月 윋 2 뒫 月 月 물 月 윋 月 月 뮏 月 뮏 윋 S acenaph thene benzidine 1, 2, 4-trichlorobenzene bis (2-chloroethyl)ether 2-chloronaphthalene 1, 2-dichlorobenzene hexachlorobenzene hexachloroethane 1, 3-dichlorobenzene 1, 4-dichlorobenzene 3,3'dichlorobenzidine 2, 4-dinitrotoluene 2,6-dinitrotoluene 1,2-diphenylhydrazine 40B 4-chlorophenyl phenyl ether Fluoranthene COMPOUND DATA FILE 2CU04085C02 CONC. FACTOR SAMPLE 10 860221 H20 EPA 12B 18B 20B 25B 26B 27B 28B 35B 36B 37B 13 88 39B **SB** 86 NPDES SCAN 891 **4** S 208 912 94 46B 33B 36B 11B **22B 23B** 27B **28B 29B** 318 17B 48

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# CORPORATION

LAB # 86-04-085 Continued From Above	NAME Method 625 Base/Neutrals Category	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1, 2, 3-cd)pyrene ND	dN energe									
<b>₩</b>	TEST CODE M625 B ected 04/10/86	798	808	818	828	838	848									
REPORT Sample	TEST CI	88	328	448	198	378	45B									
Serv Results by S	FRACTION OZA TEST CODE M625 Date & Time Collected 04/10/86	QN	QN	Q	Q	Q	Q	QN	QN			77	78	28		
Analytical Se Re	FRACTI Date &	4-bromophenyl phenyl ether	bis(2-chloroisopropyl)ether	bis(2-chloroethoxy)methane	hexachlorobutadiene _	hexachlorocyclopentadiene	isophorone	naphthalene	nitrobenzene		RESULT	d5-nitrobenzene	2-fluorabiphenyl_	d14-terphenyl	d10-biphenyl_	
		ĭ	ú	5		Ž				E3						
12/86	221 H20				<b>8</b> 2		<b>9</b>	<b>9</b>	œ,	WERI	М	11	ũ	Ω	<u>4</u>	
PAGE 13 RECEIVED: 04/12/86	SAMPLE 10 860221 H20	41B 4-b	42B bis(	438 bis	52B	838	34B	23B	268	SURROGATE RECOVERIES	SCAN CODE	585 BS1	861 BS2	1459 BS3	BS4	

NOTES AND DEFINITIONS FOR THIS REPORT.

395

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All results reported in  $\frac{107.1}{1}$  unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram

\* benzo(a)anthracene and chrysene co-elute in high concentrations.

LUCCOUNT NOOTHER PRINTED ANGEORGY PROCESSA REPORTED PROGESSES

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SAMPLE 1D 860221 H20 PAGE 14 RECEIVED: 04/12/86

Analytical Serv

REPORT

LAB # 86-04-085

Continued From Above

NAME Method 625 Base/Neutrals

Category

FRACTION 02A TEST CODE M625 B Date & Time Collected 04/10/86 B = anthracene and phenanthrene co-elute in high concentrations. Results by Sample

detected in reagent blank; background subtraction not performed

factor.

limits should be multiplied by conc.

CONC. FACTOR:

J = estimated value: less than method detection limit.

Minimum detection indicates dilution of sample if greater than one (1).



PAGE 15 RECEIVED: 04/12/86

REPORT Results by Sample Analytical Serv

LAB # 86-04-085

SAMPLE ID 860221 H20

NAME Pesticides & PCBs by GC/MS Category

FRACTION 02A TEST CODE MS 608
Date & Time Collected 04/10/86

PA	RESULT	Q	2	9	2	Q	Q	ON	Q	Q	QN	Q	Q	
VERIFIED BY COMPOUNDS DETECTED	RES	alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
	COMPOUND	•	_	Ö	**			_		_	_	_	ŭ	
HJL HJL														
ANALYST _	EPA	102P	103P	104P	103P	106P	107P	108P	109P	110P	1111	112P	113P	
Ž	SCAN	•	•	•	n			•		•	•	•	•	
al al	NPDES	S	ě	4	ņ	186	199	20P	216	22P	236	24P	256	
<u>04/14/86</u> <u>04/24/86</u>	RESULT	QN	QN	Q	QN	QN	Q	QN	QN	QN	QN	QN	QN	Q
DATE EXTRACTED DATE INJECTED		aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	endosulfan	dosulfan	sulfate	endrin	aldehyde	heptachlor	epoxide
DATE E DATE	COMPOUND			Ü				alpha en	beta endosu	endosulfan		endrin alde	•	heptachlor
DATA FILE <u>2CU04085C02</u> K. FACTOR	•	a	Δ.	<b>a</b> .	<b>a</b> .	a.	<b>a</b> .	α.	<b>a</b> .	a	0.	n.	<b>a</b> .	ο.
FACTOR	SCAN EPA	896	406	916	928	486	946	936	496	976	<b>486</b>	d66	1006	1016
DATA CONC. F	NPDES (	16	10P	49	76	8	96	116	12P	146	14P	13P	16P	17P
បី សសសសស	<b>Ž</b>	, si ans	9°. 9°- 9	o de la composición d	4	39	7	ely alle e	1, was w <sup>a</sup>	r our Ac	od od o	erijeri.	<b>ለ</b> ማ.ማ	LYATA
	ملخت		المشدا	A) A .	ماها	245.0	تمتما	47.4	مكاملة	3.43	تعلعا	تعلما	a Lau	بالملان

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Analytical Serv

FRACTION 02A TEST CODE MS 608 Date & Time Collected 04/10/86

Serv REPORT Results by Sample

LAB # 86-04-085 Continued From Above

NAME Pesticides & PCBs by GC/MS

Category

SAMPLE ID 860221 H20

AND DEFINITIONS FOR THIS REPORT.

NOTES

SCAN = scan number on chromatogram.

All results reported in micrograms/liter unless otherwise specified.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).

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PAGE 17 RECEIVED: 04/12/86

REPORT Analytical Serv

Results by Sample

SAMPLE ID 860221 DUP Analysis H20

FRACTION 03A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

LAB # 86-04-085 Category

WJE COMPOUNDS DETECTED BY LAK	COMPOUND	4-nitrophenol ND	2, 4-dinitrophenol ND	2-methyl-4, 6-dinitrophenol ND	pentachlorophenol ND	phenol 2				
ANALYST	EPA	<b>38</b> 4	39A	<b>60A</b>	64A	63A				
ANALYST INSTRUMENT	SCAN					452				
<b>H</b>	NPDES SCAN	4	ų,	4	<b>9</b>	104				
<u>04/14/86</u> 04/24/8 <u>6</u>	RESULT N	Q	2	Q	Q	Q	Q		RESULT	
DATE EXTRACTED DATE INJECTED	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	Z-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol		COMPOUND	
DATA FILE <u>2CD04085C03</u> IC. FACTOR 1	<b>«</b>			∢			⋖	RECOVERIES		
FILE 4	CAN EPA	21A	22A	244	314	34A	57A	IE RECO	SCAN CODE	
DATA FILE CONC. FACTOR	NPDES SCAN	114	8 <b>A</b>	4	2A	A&	<b>6</b> A	SURROGATE	96	
5	2			4	39	9	• • •	ns 		

NOTES AND DEFINITIONS FOR THIS REPORT.

SCAN = scan number or retention time on chromatogram

d3-phenol

8

d5-phenol

AS1

456

AS2

335

AS3

1092

**AS4** 

81

2-fluorophenol

2, 4, 6-tribromophenol

ug/l unless otherwise specified. All results reported in

JAGGGGGGG, ASAAGGGG TOPEGGGGG TESAAGAGG HAGAGGGG BOODGGTA FAGAGGGGG JOTAGGGGG DODG

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Results by Sample Analytical Serv

Continued From Above REPORT

LAB # 86-04-085

FRACTION 03A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category Category SAMPLE ID 860221 DUP Analysis H20

ND  $\approx$  not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL  $\approx$  detected in reagent blank, background subtraction not performed. indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

Minimum detection

### LAMMANAMAN CORPORATION

PAGE 19 RECEIVED: 04/12/86

Analytical Serv REPORT Results by Sample

LAB # 86-04-085

ALAM Mathad 20% as a ship water CDAPTION ASA CAMPIC IN OLOTH

Base/Neutrals ory	VERIFIED BY LAK DS DETECTED 2	RESULT	hylamine ND	nylamine ND	pylamine ND	hthalate 4	phthalate ND	phthelate SBL	phthalate ND	phthalate ND	phthalate ND	acene A ND	benzo(a)pyrene ND	thene * ND	thene * ND	chrysene A ND	hthylene ND	anthracene B ND	
B NAME Method 625 Base/Neutrals Fied Category	WJL COMPOUNDS	COMPOUND	N-nitrosodimethylamine	N-nitrosodiphenylamine	N-nitrosodi-n-propylamine	bis(2-ethylheryl)phthalate	butyl benzyl p	di-butyl p	di-n-octyl p	diethyl p	dimethyl p	benzo(a)anthracene	) ozueq	benzo(b)fluoranthene	benzo(k)fluoranthene	chr	acenaphthyl	bothr	
M625 B N specified	YST ENT	EPA	61B	62B	<b>8</b> 29	899	67B	<b>889</b>	69B	70B	718	72B	738	74B	758	768	778	788	
	ANALYST INSTRUMENT	SCAN				1643		1303	_						_	_			
TES 11ect		NPDES	418	43B	42B	138	158	26B	29B	24B	25B	5B	<b>6</b> B	7.8	98	188	2B	38	
R Time Collected	04/14/86 04/24/86	RESULT	QN	QN	QN	QN	QN	QN	QN	SZ.	2	QN	QN	QN	Q	8	Q	Q	
FRACI	DATE EXTRACTED DATE INJECTED	QN	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	he xach lorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1, 2-dichlorobenzene	1, 3-dichlorobenzene	1, 4-dichlorobenzene	3,3'dichlorobenzidine	2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	phenyl ether	
SAMPLE ID <u>860221 DUP Analysis H20</u>	2CD04085C03 D4	COMPOUND			1, 2, 4-tric	hexac	he x i	bis(2-chlor	2-ch101	1, 2-di	1, 3-die	1, 4-di	3, 3'dich	2,4-4	2,6-4	1,2-diph		40B 4-chlorophenyl	
60221	E 2000	EPA	18	<b>2B</b>	88	<b>9</b> B	128	188	20B	258	26B	27B	28B	358	36B	37B	398	40B 4	
표 (2) (3)	DATA FILE 4C. FACTOR	SCAN											-	-		_	_	_	
SAMPL	DA CONC.	NPDES	18	48	46B	338	36B	118	<b>4</b> 4	នឹ 101	218	22B	23B	27B	28B	29B	318	178	

### CORPORATION

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REPORT Results by Sample Analytical Serv

Continued From Above LAB # 86-04-085

NAME Method 625 Base/Neutrals	benzo(ghi)perylene ND	fluorene ND	phenanthrene B ND	dibenzo(a,h)anthracene ND	indeno(1,2,3-cd)pyrene ND	Durene ND				
.==	79B	808	818	828	838	848				
TEST CODE M625 B lected not specif	88	32B	44B	19B	378	45B				
RACTION O3A TEST (ate & Time Collected	QN	2	Q	2	2	Q.	S	QN		
FRACTION O3A Date & Time	1 ether	1)ether	methane _	tadiene _	tadiene	isophorone	thalene	benzene _		
s H20	yl phenyl	bis(2-chloroisopropyl)e	bis(2-chloroethoxy)methane	hexachlorobutad	hexachlorocyclopentad	150	naphtha	nitroben		RESULT
Analusi	4-bromophenyl	2-chloro	(2-chlor	hexa	xachloro					œ
3			bis		Ě				RIES	
SAMPLE ID 860221 DUP Analysis H20	41B	42B	43B	52B	538	24B	558	26B	SURROGATE RECOVERIES	SCAN CODE
Щ	14B	128	10B	34B	35B	388	39B	40B	OGA	ũ

107

d5-nitrobenzene\_

94

2-fluorobiphenyl

**BS2** 

862

402

BS1

582

4

BS3

1459

**BS4** 

d14-terphenyl

d10-biphenyl

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84).ug/1 unless otherwise specified. \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute SCAN = scan number or retention time on chromatogram. All results reported in\_

= benzo(a)anthracene and chrysene co-elute in high concentrations.

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Results by Sample Analytical Serv

REPORT

LAB # 86-04-085 Continued From Above

SAMPLE ID 860221 DUP Analysis H20 RECEIVED: 04/12/86

FRACTION O3A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category

 detected in reagent blank; background subtraction not performed.  $oldsymbol{B}$  = anthracene and phenanthrene co-elute in high concentrations. value: less than method detection limit.

limits should be multiplied by conc. factor.

J = estimated CONC. FACTOR:

Category

Minimum detection indicates dilution of sample if greater than one (1).

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PAGE 22 RECEIVED: 04/12/86

serv Results by Sample Analytical Serv

LAB # 86-04-085

SAMPLE ID 860221 DUP Analysis H20

FRACTION 03A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

VERIFIED BY LAK 3 ANAL YST DATE EXTRACTED 04/14/86 DATA FILE 2CD04085C03

	RESULT	S	S	QN	QN	QN	Q	S	QN	Q	QN	Z	Q	
COMPOUNDS DETECTED	COMPOUND	alpha BHC	beta BHC	gemme BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
164	•	<b>a</b> .	a	a	0.	n	a	0	0	0	•	•	•	
ANAL Y'S'I	N EPA	102P	103P	104P	1036	106P	107P	108P	109P	110P	111P	112P	1136	
Č	NPDES SCAN	۵.	n.	n.	n.	n.	0.	۵.	n	ο.	n	•	n	
ol	NP DE	<u> </u>	₩ 	 G	an T	186	196	20P	1 21P	22P	23P	24P	236	
04/24/86 04/24/86	RESULT	QN N	Q	2	N	Q	QN	S	Q	ND	QN	ND	ND	Q.
DATE INJECTED <u>04/24/86</u> DATE INJECTED <u>04/24/86</u>		aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-000	endosulfan	endosulfan	in sulfate	endrin	endrin aldehyde	heptachlor	T epoxide
	COMPOUND							alpha	beta	endosulfan		endrin	E	heptachlor
	EPA	89P	90P	91P	92P	93P	94P	95P	496	97P	486	<b>d</b> 66	100P	101P
NC. FACTOR	SCAN	_	•	•	•	•	•	•	•	•	•	Ψ-	7.	1(
DAIR FILE	NPDES 9	16	106	<b>6</b> 9	76	8	96	116	12P	14P	14P	13P	16P	17P
Ö	Ž		4 <b>3 4 4 4</b>		- = - = -	4	40	4		• • • •				• •

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Analytical Serv

SAMPLE ID 860221 DUP Analysis H20

Results by Sample

REPORT

FRACTION 03A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

LAB # 86-04-085 Continued From Above

NOTES AND DEFINITIONS FOR THIS REPORT

SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79).All results reported in micrograms/liter unless otherwise specified.

# SCHOOL SCHOOL STAND ON A TION

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REPORT Results by Sample Analytical Serv

LAB # 86-04-085

SAMPLE ID 860223 Matrix Spike H20

FRACTION 04A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified

Category

# P P P ANALYST INSTRUMENT NATE EXTRACTED 04/14/86 DATE INJECTED 04/24/86 DATE EXTRACTED DATA FILE 2CM04085C03 CONC. FACTOR

VERIFIED BY COMPOUNDS DETECTED

Y T

145

RESULT

130

147

139

8

4-nitrophenol 2, 4-dinitrophenol 2-methyl-4, 6-dinitrophenol pentachlorophenol phenol COMPOUND **60A** EPA **38A 59A 64A 63A** RESULT NPDES SCAN 986 5A 976 4A 1065 9A 1179 10A 456 **7**A 103 22 105 115 9 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2, 4-dichlorophenol 2,4-dimethylphenol 2-nitrophenol 2-chlorophenol COMPOUND EPA 21A **22A 31A** 24A 344 **57A** 6A 635 848 NPDES SCAN 779 475 2A 670 3A 642 114 84 4 4 406

SURROGATE RECOVERIES

105

95 83 RESULT d5-phenol 2-fluorophenol 2, 4, 6—tribromophenol d3-phenol COMPOUND **AS2** ASB AS4 SCAN CODE AS1 454 331 1092

NOTES AND DEFINITIONS FOR THIS REPORT.

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unless otherwise specified. SCAN = scan number or retention time on chromatogram All results reported in

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04/12/86 04/12/86

Analytical Serv REPORT Results by Sample

LAB # 86-04-085

Continued From Above

FRACTION 04A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category SAMPLE ID 860223 Matrix Spike H20

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL=detected in reagent blank, background subtraction not performed. J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1).

limits should be multiplied by conc. factor.

Minimum detection

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RECEIVED: 04/12/86

Analytical Serv REPORT Results by Sample

NAME Method 625 Race/Neutrals REST FORF MA25 R EDALTION DAA CAMPIET IN BEAD 32 MARTIN SAIN TO INDI

specified Category	WUL VERIFIED BY LAK  #2 COMPOUNDS DETECTED 46	COMPOUND	N-nitrosodimethylamine 123	N-nitrosodiphenylamine 106	N-nitrosodi-n-propylamine 100	bis(2-ethylhexyl)phthalate 81	butyl benzyl phthalate 47	di-butyl phthalate 69	di-n-octyl phthalate 78	diethyl phthalate 81	dimethyl phthalate 59	benzo(a)anthracene A 87	benzo(a)pyrene 98	benzo(b)fluoranthene * 90	benzo(k)fluoranthene * 90	chrysene A 83	acenaphthylene 73	anthracene B 90	
	ANAL YST TRUMENT	EPA	61B	62B	<b>8</b> E9	<b>66B</b>	67B	<b>889</b>	69B	708	718	72B	73B	74B	75B	76B	778	788	
ected not	ANALYST INSTRUMENT	SCAN	177	1021	266	1643	1544	1303	1763	1043	931	1628	1938	1821	1858	1636	942	1211	
lecte	H	NPDES	418	43B	42B	138	158	26B	29B	24B	25B	S	<b>6</b> B	78	9B	188	28	38	
ate & Time Collected	04/14/86 04/24/86	RESULT	86	38	91	93	94	88	85	98	98	85	131	111	110	¥	22	103	
SAMPLE ID 860223 Matrix Spike HZU FRACII	DATE EXTRACTED  DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1, 2-dichlorobenzene	1,3-dichlorobenzene	1, 4-dichlorobenzene	3,3'dichlorobenzidine	2,4-dinitrotoluene	2,6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	ophenyl phenyl ether	
Tathi.	2CM04085C03		_	_						_	_	_		-			•	3 4-chlorophenyl	
77098		EPA	100	28	88	96	12B	188	20B	258	1 26B	27B	288	338	36B	378	39B	£ 40B	
મ ⊒	DATA FILE C. FACTOR	SCAN	972	1416	<b>684</b>	1152	576	468	876	230	496	503	1625	1001	940	_	1396	1052	
SAMPL	DATA FILE CONC. FACTOR	NPDES	18	48	46B	338	36B	1118	16B	20B	218	22B	238	278	288	29B	318	17B	
	-							4	40	O									

Geere Session

LAB # 86-04-085 Continued From Above

Serv REPORT

Analytical Serv

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3 NAME Method 625 Base/Neutrals Fied Category	pen20	fluorene 80	phenanthrene B 77	dibenzo(a, h) anthracene 108	indeno(1,2,3-cd)pyrene 107	pyrene 74							
M625 B N specified		808	818	82B	838	848							
TEST CODE M625 B ected not specif	2466	1021	1204	2357	2343	1432							
TESI 11ecte	88	32B	44B	198	378	42B							
104A	108	101	98	8	6	78	77	98			117	103	24
FRACTION 04A TEST CODE Date & Time Collected not	ther	ther	hane	iene	iene	-uor	lene	zene			nzene	henyl	eny1
	pheny] et	pyl)et	iy)meth	butadi	entadi	isophor	naph tha 1	nitrobenz			d5-nitroben	robiph	d14-terphenyl
e H20	yl phe	isopro	bis(2-chloroethoxy)met	hexachlorobutad	hexachlorocyclopentad	•	2	nit		RESULT	43-ni	2-fluorobip	919
Spik	nophen	hloro	-chlor	he x a	hloro					œ			
Matri	4-bromophenyl	42B bis(2-chloroisopropyl)e	bis(2-		hexac				IES				
50223	41B	42B b	43B	528	238	34B	558	26B	ECOVER	CODE	BS1	<b>BS2</b>	BS3
11 8	1128	547	729	723	837	622	643	40B 58Z	ATE RE	SCAN CODE	284	861	1458
SAMPLE ID 860223 Matrix Spike H20	148 1128	12B	108	348	358	38B 623	398	40B	GURROGATE RECOVERIES	4		09	***

## NOTES AND DEFINITIONS FOR THIS REPORT.

d10-biphenyl

**BS4** 

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). = benzo(a)anthracene and chrysene co-elute in high concentrations. % unless otherwise specified. \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute. SCAN = scan number or retention time on chromatogram All results reported in\_

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Analytical Serv

REPORT

LAB # 86-04-085

Continued From Above

FRACTION 04A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category  $\mathbf{B}$  = anthracene and phenanthrene co-elute in high concentrations. Results by Sample SAMPLE ID 860223 Matrix Spike H20

# detected in reagent blank, background subtraction not performed.

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

CONC. FACTOR:

Minimum detection indicates dilution of sample if greater than one (1).

Category

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RECEIVED: 04/12/86 PAGE 29

REPORT Results by Sample Analytical Serv

LAB # 86-04-085

SAMPLE ID Method Spike H20

FRACTION 04B TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

Category

2CM04127C01 DATA FILE FACTOR

DATE EXTRACTED 04/22/86 DATE INJECTED 04/28/86

ANALYST

VERIFIED BY LAK

CONC.

INSTRUMENT

HY.

2, 4, 6-trichlorophenol EPA **21A** 22A 314 **24**A 848 779 NPDES SCAN 475 2A 670 8 8 14 11A

104

COMPOUND

RESULT NPDES SCAN

EPA

**58A** 

986

7A

**59A** 

5A 976

S

107

4-nitrophenol

2, 4-dinitrophenol

RESULT

COMPOUND

COMPOUNDS DETECTED

4-chloro-3-methylphenol 2-chlorophenol 2, 4-dichlorophenol

2, 4-dimethylphenol

34A

3A 642

**57A** 

6A 635

10A 454

92

2-nitrophenol

4

**63A** 

pentachlorophenol

113

72

phenol

11

2-methyl-4, 6-dinitrophenol

**60A** 

4A 1066

8

644

9A 1180

25

SURROGATE RECOVERIES

SCAN CODE

COMPOUND

d5-phenol

RESULT

2-fluorophenol

**AS2** 

331

AS1

454

읾

97

ASB

1092

AS4

2, 4, 6—tribromophenol

d3-phenol

NOTES AND DEFINITIONS FOR THIS REPORT.

% unless otherwise specified SCAN = scan number or retention time on chromatogram All results reported in

STATE OF THE PARTY 
FRACTION 04B TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category REPORT Results by Sample Analytical Serv SAMPLE ID Method Spike H20 RECEIVED: 04/12/86

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

indicates dilution of sample if greater than one (1).

factor.

limits should be multiplied by conc.

CONC. FACTOR:

Continued From Above LAB # 86-04-085

Minimum detection

Category

412 4

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Analytical Serv REPORT Results by Sample

LAB # 86-04-085 Continued From Above 100

80

73

96

99

85

SAMPL	E	Metho	SAMPLE ID Method Spike H20	FRACTION 04B	=======================================	EST (	CODE	M625 B	TEST CODE M625 B NAME Method 625 Base/Neutra	Neutra
				Date & Time Collected not specified	e Colle	cted	not	specifie	d Category	
148	1129	41B	4-bromophenyl phe	nyl ether	7.6	8B 2467		798	benzo(ghi)perylene	ine
12B	547		42B bis(2-chloroisopropyl	pyl)ether	E : 79	32B 10	1052	808	fluorene	au e
108	657	Z 43B	bis(2-chloroethoxy)m	y)methane	73 :-	44B 1204		818	phenanthrene	<b>m</b>
34B	723	3 52B	hexachlorobuta	butadiene	26 -	198 2	2326	82B	dibenzo(a,h)anthracene	ine
32B		238	hexachlorocyclopenta	entadiene	 왕	37B 2346		838	indeno(1,2,3-cd)pyrene	e u
388	622	2 54B	isopi	sophorone	74 : 4	45B 1433		848	enery o	•
39B	693	3 55B	naphti	phthalene	 28					
40B	287	26B	nitrobenzene		74 :					
SURRO	GATE	SURROGATE RECOVERIES	RIES							

BS4

91

d5-nitrobenzene

RESULT

SCAN CODE

2-fluorobiphenyl

**BS**2

861

BS1

584

4

**BS3** 

1459

414

d14-terphenyl

d10-biphenyl

SCAN = scan number or retention time on chromatogram.

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). <u>%</u> unless otherwise specified All results reported in\_

= benzo(b)fluoranthene and benzo(k)fluoranthene co-elute

= benzo(a)anthracene and chrysene co-elute in high concentrations.

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LAB # 86-04-085 Continued From Above

FRACTION 04B TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category = detected in reagent blank; background subtraction not performed.  $\mathbf{B}$  = anthracene and phenanthrene co-elute in high concentrations. REPORT Results by Sample Analytical Serv SAMPLE ID Method Spike H20

Category

Minimum detection

indicates dilution of sample if greater than one (1).

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

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Serv REPORT Results by Sample Analytical Serv

LAB # 86-04-085

SAMPLE ID Reagent Blank H20

FRACTION 05A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

Y O Category

VERIFIED BY COMPOUNDS DETECTED
#JE
ANALYST
DATE EXTRACTED 04/14/86 DATE INJECTED 04/24/86
DATA FILE 2CB04085C05 CONC. FACTOR 1
وفواو

RESULT	N	QN	ND	QN	QN
COMPOUND	4-nitrophenol	2, 4-dinitrophenol	60A 2-methyl-4,6-dinitrophenol	pentachlorophenol	phenol
EPA	<b>58A</b>	<b>59A</b>	<b>60A</b>	64A	65A
NPDES SCAN	. 7A	3A	44 44	¥6	10A
RESULT	Q	Q	S	Q	Q
COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol
EPA	21A	22A	24A	31A	34A
NPDES SCAN	114	8 <b>A</b>	14	2A	34

### SURROGATE RECOVERIES

**57A** 

**4**9

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2-nitrophenol

SCAN CODE COMPOUND RESULT	458 AS1 d5-phenol 83	338 AS2 2-fluorophenol BC	1093 AS3 2, 4, 6-tribromophenol 7	AS4 d3-phenol
SCAN COI			1093 AS	Ą

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in

PAGE 35 RECEIVED: 04/12/86

SAMPLE ID Reagent Blank H20

FRACTION 05A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84).

BL = detected in reagent blank; background subtraction not performed.

J = estimated value; less than method detection limit.

CONC. FACTOR: indicates dilution of sample if greater than one (1).

factor.

limits should be multiplied by conc.

Minimum detection

REPORT Results by Sample

Analytical Serv

Continued From Above

LAB # 86-04-085

# MMMICHAEL COMPANIES COMPAN

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Analytical Serv REPORT Results by Sample

LAB # 86-04-085

B NAME Method 625 Base/Neutrals fied Category	WJL VERIFIED BY LAK  F2 COMPOUNDS DETECTED 1	COMPOUND	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylheryl)phthalate ND	butyl benzyl phthalate ND	di-butyl phthalate 6	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A ND	benzo(a)pyrene	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A ND	acenaphthylene ND	anthracene B ND	
M625 B specifie	ANALYST TRUMENT	EPA	61B	62B	<b>8</b> E9	<b>899</b>	67B	<b>889</b>	869	70B	718	72B	73B	74B	758	76B	77B	788	
Collected not	ANALYST INSTRUMENT	NPDES SCAN	418	43B	42B	138	15B	26B 1304	29B	24B	258	80	89	78	98	188	28	38	`
FRACTION <u>O5A</u> Date & Time Col	04/14/86 04/24/86	RESULT	2	Ð	Q Z	2	2	2	Ž	9	9	P	QN	Q	Q	Q Z	Ş	Q	- '
	DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexach lorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1,2-dichlorobenzene	1,3-dichlorobenzene	4-dichlorobenzene	3,3'dichlorobenzidine	2, 4-dinitrotoluene	2, 6-dinitrotoluene	1,2-diphenylhydrazine	fluoranthene	anyl phenyl ether	
Blank H2C	2CB04085C05	55			1, 2, 4-	-		bis(2-c	2-6	1.0	1,0	1.4	3, 3, 6	'n	'n	1, 2-6		4-chlorophenyl	
SAMPLE ID Reagent Blank H20	DATA FILE <u>2CBO</u> 4 VC. FACTOR	SCAN EPA	18	5B	88	98 8	128	188	208	258	268	278	288	358	368	378	398	40B 4-	)
SAMPLE	DATA CONC. F	NPDES S	18	<b>4</b>	46B	338	368	g11 4	168	ខ្លួ 18	218	22B	23B	27B	288	29B	318	178	
ninininin	indoini Chairt		XX.		(A) (A)		266				(2)X	24%		27.2	: <i>M</i> :	<i>7.22.2</i>	<u> Y:Y:</u>	<u> </u>	

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LAB # 86-04-085 Continued From Above

Analytical Serv REPORT Results by Sample

PAGE 37 RECEIVED: 04/12/86 2

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2

Date & Time Collected   Date   Date & Time Collected   Date   Dat	SAMPLE	148	12B	108	34B	338	388	39B	40B	SURROGATE		4	41.	0		NOTES	
THEOD FRACTION 05A TEST CODE M625 B  The collected not specifie  The collected not specifie  The collected not specifie  The collected not specified  o the collecter of the collect		4	Ť	Ť	ñ	Ñ	Ŋ	in.	ń						<b>m</b>	AND DEF	<b>Z</b> 11
THEOD FRACTION 05A TEST CODE M625 B  Date & Time Collected not 50e(1) ightifies  chloroisopropyl) ether ND i 328 808  2-chloroethoxy) methane ND i 198 828  hexachlorobutadiene ND i 198 828  isophorone ND i 458 848  naphthalene ND i 458 848  RESULT  d5-nitrobenzene ND i  ald-terphenyl 104  d14-terphenyl 52  d10-biphenyl 52  d10-biphenyl 52  d10-biphenyl 52  d10-biphenyl 52  d10-biphenyl 104  d14-terphenyl 104  d14-terphenyl 52  d10-biphenyl 104  d14-terphenyl 104	qent		۵		2B	38	<b>4</b> B	99 28	<b>89</b>	OVER	Ä	<b>S1</b>	25	23	<b>8</b>	INIT	scan Ults t de zo(b
FRACTION OSA TEST CODE M625 B sopropyl) ether ND is 8B 79B strocky)methane ND is 44B 81B hlorobutadiene ND is 19B 82B hlorobutadiene ND is 19B 82B hlorobutadiene ND is 19B 82B nitrobenzene ND is 19B 84B nitrobenzene ND is 19B 84B alsophorone ND is 19B 82B do-nitrobenzene ND is 19B 84B sult do-nitrobenzene 11B do-nitrobenzene	1	4-bro	is (2-,	bis(2.		ų x o t				IES							C F E 4 6
FRACTION OSA TEST CODE M625 B sopropyl) ether ND is 8B 79B strocky) methane ND is 44B 81B hlorobutadiene ND is 48B 82B hlorobutadiene ND is 48B 82B yclopentadiene ND is 48B 82B nitrobenzene ND is 48B 84B nitrobenzene ND is 45B 84B alsophorone ND is 45B 82B alsophorone ND is 45B		nophe:	ch lor	-ch10:	e x	chlor					_						ted ted but anth
FRACTION OSA TEST CODE M625 B engl ether ND i 8B 79B 60B 79B 60butadiene ND i 19B 82B 60butadiene ND i 19B 82B 60butadiene ND i 19B 82B 64B 650butadiene ND i 10A 605 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 665 6666 6666 6666 6666 6666 6666 6666 6666				roeth	ach lo	ocycl.		-	c		RESUL	<b>D</b>	2-f1	70			ם הו ע
UN 05A TEST CODE M625 B  Time Collected not specifie  ND		heny 1	_		_		isop	napht	-		<b>-</b> -		vorob			EPORT	
UN 05A TEST CODE M625 B  Time Collected not specifie  ND	FRACT Date		)ether	ethane	adiene	adiene	horone	halene	enzene			benzen	ipheny	rpheny	ipheny		time unles ion li nzo(k)
### CODE M625 B ### FOR TOPE ### BOB #### BOB ### BOB	ION 05A	2	QN	N	2	2	S	S	QN								on chroman chromanit meti
80B B B B B B B B B B B B B B B B B B B	TEE Sollect	38	1 32E	 44E	191	1 37E	455										matogra wise st tod 62t thene c
80B B B B B B B B B B B B B B B B B B B	or code	_	-	_	-	*	-										
		79B	808	818	82B	838	848										
Method 625 Base/n benzo(ghi)peryler phenanthrene eno(1,2,3-cd)pyrer pyrer , 10/26/84).					<b>d1</b> b	, put											gister ons.
ghi)pergler fluorer fluorer fluorer pyrer pyrer pyrer pyrer (84).	Method	) ozuag		o to	enzo(a,	Bno(1,2											
	625 atego	ghilp	4	nanth	h)ant	2, 3-cd											5/84).
	Base/	eryle	luorei	9091	hraces	) pyrei	Pyre										

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Analytical Serv

REPORT Results by Sample

LAB # 86-04-085 Continued From Above

SAMPLE ID Reagent Blank H2O

FRACTION O5A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category

B = anthracene and phenanthrene co-elute in high concentrations.

limits should be multiplied by conc. factor.

Category

Minimum detection BL = detected in reagent blank; background subtraction not performed indicates dilution of sample if greater than one (1). J = estimated value; less than method detection limit.

## CORPORATION

PAGE 39 RECEIVED: 04/12/86

REPORT Analytical Serv

Results by Sample

LAB # 86-04-085

SAMPLE ID Reagent Blank H20

FRACTION OSA TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

Category

¥ Y ANALYST DATE EXTRACTED 04/14/86 DATE INJECTED 04/24/86 DATA FILE 2CB04085C05 CONC. FACTOR

COMPOUNDS DETECTED O

RESULT	QN.	Q	Q	ND	S	QN	QN	Ü	QN	Q	Q	Q	
	alpha BHC	beta BHC	gamma BHC	delta BHC	PCB-1242	PCB-1254	PCB-1221	PCB-1232	PCB-1248	PCB-1260	PCB-1016	toxaphene	
COMPOUND	·		•	•								•	
EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	1111	112P	113P	
SCAN		_					_		_	_			
NPDES	20	ස ස	4	in In	186	196	20P	216	22P	23P	24P	23P	
RESULT	Q	ᄝ	N	2	Q	9	2	Q	Q	2	呈	R	S
æ	- 1		-		}		1						
COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor	heptachlor epoxide
	89P aldrin	90P dieldrin	91P chlordane	4, 4'-DDT	93P 4, 4'-DDE	94P 4, 4'-DDD	endosu	endosu	501	98P endrin	99P endrin aldehyde	100P heptachlor	o d a

## AMMICINA Seconda de S KANDAMAN CORP.

PAGE 40 RECEIVED: 04/12/86

Analytical Serv

REPORT Results by Sample

LAB # 86-04-085 Continued From Above

SAMPLE ID Reagent Blank H20

FRACTION 05A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified

Category

AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

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Serv REPORT NonReported Work Analytical Serv

LAB # 86-04-085

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

DUP\_NS DUP\_NS 01B 02B

4 423

ANNANIA MARKAMI, TETETERA ESTECTICA BARRARIA PROGRESA BONANDO DESCRIBOR MECHANICA MANANA

### KANDIAN.

	LAB # 86-04-135	CERTIFIED BY	CONTACT FRENCH	6. ments	5 times the detection limit.	u for this anelusis on the acceptable limits indicating	used on this report
	tical Serv REPORT 09/08/86 12:39:02	PREPARED Radian Analutical Services BY 8501 MoPac Blvd. P. O. Box 9948 ATTEN		Duplicate of report of 06/12/86.	* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.	E indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.	Analytical Serv TEST CODES and NAMES used EX 623 Extraction only - 625 BN/A M625 A Method 625 Acid Compounds M625 B Method 625 Base/Neutrals M5 608 Pesticides & PCBs by GC/MS
Note and a second	PAGE 1 RECEIVED: 04/23/86	REPORT Redien Corporation TO Lerry French Austin, Texas	CLIENT PLANT 4 SAMPLES 3 COMPANY General Dunamics FACILITY DEHL Plant 4, Bldg 4	1 7 1	TRANS Fed Ex 736764856  TYPE H20 P. D. # 212-027-27-40 INV. # 8062	4 424	SAMPLE IDENTIFICATION  11 P-23 860225 H20 BNA  12 HM-101 860228 H20 BNA  13 Reagent Blank H20

	86-04-135				
	LAB #				
÷	REPORT 7 Test	Sample 03 (entered units)	04/23/86		
<b>\</b>	Analytical Serv RESULTS BY	Sample 02 (entered units)	04/23/86		
RATION	Analy	Sample 01 (entered units)	04/23/86		
2000	§ PAGE 2 § RECEIVED: 04/23/86	TEST CODE	EX 625 date complete		
	PAG	- <del> </del>	 M 4	4 425	

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RECEIVED: 04/23/86

Analytical Serv

REPORT Results by Sample

LAB # 86-04-135

SAMPLE ID P-23 860225 H20 BNA

TEST CODE M625 A FRACTION 01A

Date & Time Collected 04/18/86

NAME Method 625 Acid Compounds Category

£2 INSTRUMENT ANALYST DATE EXTRACTED 04/23/86 DATE INJECTED 04/28/86 DATA FILE 200413501

COMPOUND EPA NPDES SCAN RESULT COMPOUND NPDES SCAN

VERIFIED BY LAK COMPOUNDS DETECTED

> 2, 4, 6-trichlorophenol 4-chloro-3-methylphenol 2-chlorophenol 2, 4-dichlorophenol **214** 22A 31A 24A 8 11A 14 426

月

**88** 

4

**39A** 

Q

4-nitrophenol

RESULT

모

2, 4-dinitrophenol

문

2-methyl-4, 6-dinitrophenol

뮏

밀

phenol

\$

뒫

月

**60A** 

644

8

뒫

**63A** 

10A

月

2, 4-dimethylphenol

34A

3A

**57A** 

**4**9

9

2-nitrophenol

pentachlorophenol

SURROGATE RECOVERIES

d5-phenol COMPOUND SCAN CODE 287

AS1

**AS2** 

862

86%

RESULT

82%

2-fluorophenol

35%

d3-phenol

2, 4, 6-tribromophenol AS3 1092

NOTES AND DEFINITIONS FOR THIS REPORT.

AS4

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in

DISTRIBUTE PROSECULA: PARTERERA FOR

RECEIVED: 04/23/86

Analytical Serv

REPORT Results by Sample FRACTION 01A TEST CODE M625 A

LAB # 86-04-135 Continued From Above

NAME Method 625 Acid Compounds

Category

SAMPLE ID P-23 860225 H20 BNA

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). Date & Time Collected 04/18/86

BL = detected in reagent blank; background subtraction not performed J = estimated value, less than method detection limit. Minimum detection indicates dilution of sample if greater than one (1). limits should be multiplied by conc. factor.

6666666 <u>0</u> F	NAME OF THE PROPERTY OF THE PR		<b>K</b>			
PAGE 5 RECEIVED: 04	04/23/86	Analytical Se Re	Serv Results by	REPORT Sample		LAB # 86-04-135
SAMPLE ID P.	P-23 860225 H20 BNA	FRACT	ION OIA & Time Co.	OIA TEST CODE ime Collected 04/1	M625 8/86	B NAME Method 625 Base/Neutrals Category
DATA FILE	E 20004135001 R	DATE EXTRACTED DATE INJECTED	04/23/86 04/28/86	SNI	ANALYST _	HM VERIFIED BY LAK  F2 COMPOUNDS DETECTED 2
SCAN	EPA C	COMPOUND	RESULT	NPDES SCAN	EPA	COMPOUND
	18	acenaphthene	Q	418	61B	N-nitrosodimethylamine ND
	a S	benzidine	Q	43B	62B	N-nitrosodiphenylamine ND
	88 1,2,4	1, 2, 4-trichlorobenzene	Q.	42B	<b>8E9</b>	N-nitrosodi-n-propylamine ND
	<b>86</b>	hexachlorobenzene	QN	13B 1644	899	bis(2-ethylhexyl)phthalate 3
	12B	hexachloroethane	QN	158	67B	butyl benzyl phthelate ND
	18B bis(2-	bis(2-chloroethyl)ether	9	26B 1304	<b>889</b>	di-butyl phthalate 3 BL
	20B 2-	2-chloronaphthalene	Q	29B	69B	di-n-octyl phthalate ND
	25B 1,	1,2-dichlorobenzene	Q	24B	70B	diethyl phthalate ND
	268 1,	1,3-dichlorobenzene	Q	25B	718	dimethyl phthalate ND
	27B 1,	, 4-dichlorobenzene	2	38	728	benzo(a)anthracene A ND
	288 3,3′	3,3'dichlorobenzidine	Q	89	73B	benzo(a)pyrene ND
	35B 2	2, 4-dinitrotoluene	QN	78	74B	benzo(b)fluoranthene * ND
	Z 89E	2,6-dinitrotoluene	2	9.8	758	benzo(k)fluoranthene * ND
	37B 1, 2-	1,2-diphenylhydrazine	2	188	76B	chrysene A ND
	39B	fluoranthene	Q	2B	778	acenaphthylene ND
	40B 4-chlorophenyl	henyl phenyl ether	Q.	38	788	anthracene B ND
_			• .			

NAME Method 625 Base/Neutrals Continued From Above benzo(ghi)perylene fluorene dibenzo(a, h)anthracene indeno(1, 2, 3-cd)pyrene phenanthrene LAB # 86-04-135 Category FRACTION OIA TEST CODE M625 B Date & Time Collected 04/18/86 79B **BOB** 818 82B 838 848 REPORT Results by Sample 88 32B 19B 37B 45B 44B Q 윋 2 윋 2 月 Analytical Serv 41B 4-bromophenyl phenyl ether bis(2-chloroisopropyl)ether bis(2-chloroethoxy)methane hexachlorobutadiene hexachlorocyclopentadiene isophorone SAMPLE ID P-23 860225 H20 BNA RECEIVED: 04/23/86 42B 43B 53B 54B **52B** 14B 12B 10B 34B 35B 38B

9

2

### SURROGATE RECOVERIES

Z

nitrobenzene

2

naphthalene

55B

39B

**56B** 

40B

RESULT	d5-nitrobenzene <u>86%</u>	2-fluorobiphenyl 82%	d14-terphenyl 35%	d10-biphenyl
SCAN CODE	587 BS1	258 <u>298</u>	1460 BS3	BS4
4	4	29		

## NOTES AND DEFINITIONS FOR THIS REPORT.

All results reported in <u>ug/l</u> unless otherwise specified. ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). = benzo(a)anthracene and chrysene co-elute in high concentrations. \* = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute SCAN = scan number or retention time on chromatogram

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SAMPLE ID P-23 860225 HZO BNA RECEIVED: 04/23/86 PAGE 7

Serv REPORT Results by Sample Analytical Serv

LAB # 86-04-135 Continued From Above

NAME Method 625 Base/Neutrals

Category

Minimum detection

indicates dilution of sample if greater than one (1).

limits should be multiplied by conc. factor.

CONC. FACTOR:

FRACTION OIA TEST CODE M625 B

# detected in reagent blank; background subtraction not performed.  $\mathbf{B}$  = anthracene and phenanthrene co-elute in high concentrations. Date & Time Collected 04/18/86 J = estimated value; less than method detection limit.

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PAGE 8 RECEIVED: 04/23/86

REPORT Results by Sample Analytical Serv

LAB # 86-04-135

SAMPLE ID P-23 860225 H20 BNA

NAME Pesticides & PCBs by GC/MS Category FRACTION OIA TEST CODE MS 608 Date & Time Collected 04/18/86

王 ANALYST DATE EXTRACTED 04/23/86 DATE INJECTED 04/28/86 DATA FILE 2CU04135C01 CONC. FACTOR

VERIFIED BY LAK COMPOUNDS DETECTED

CONTRONDS DETECTED	COMPOUND RESULT	alpha BHC ND	beta BHC ND	Gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene	
	SCAN EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	111P	112P	113P	
ai	NPDES SCAN	2P	e e	4	di L	18P	136	20P	216	22P	1 23P	24P	25P	
V4/46/9	RESULT	ND	MD	ND	ND	QN	QN	CN	ND	QN	S S	N	QN	Q
DATE INGELIED VALGETOR	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin ældehyde	heptachlor	heptachlor epoxide
	SCAN EPA	896	906	916	92P	93P	94P	95P	496	976	98P	466	100P	101P
	NPDES SC	11	10P	<b>6</b> P	76	<b>8</b>	96	111	12P	14P	14P	15P	16P	17P
3	Ž				4	43	1							

RECEIVED: 04/23/86

Analytical Serv REPORT Results by Sample

FRACTION OIA TEST CODE MS 608 Date & Time Collected 04/18/86

LAB # 86-04-135 Continued From Above

NAME Pesticides & PCBs by GC/MS

Category

SAMPLE ID P-23 860225 H20 BNA

SCAN = scan number on chromatogram.

AND DEFINITIONS FOR THIS REPORT.

NOTES

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

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REPORT Analytical Serv

Results by Sample

LAB # 86-04-135

NAME Method 625 Acid Compounds

SAMPLE ID HM-101 860228 H20 BNA

FRACTION OZA TEST CODE M625 A
Date & Time Collected 04/18/86

Category

BY LAK ED O	RESULT	S	8	Š	CN	Q
VERIFIED BY LAK	COMPOUND	4-nitrophenol	2, 4-dinitrophenol	2-methyl-4,6-dinitrophenol	pentachlorophenol	phenol
ANALYST	EPA	38A	39A	₩09	64A	<b>63A</b>
ANAL YST INSTRUMENT	NPDES SCAN	7.4	e c	ş	<b>8</b>	104
<u>04/23/86</u> 04/28/86	RESULT N	QN	Q	Q	Q	Q
DATE EXTRACTED <u>04/23/86</u> DATE INJECTED <u>04/28/86</u>	COMPOUND	2, 4, 6-trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2,4-dichlorophenol	2,4-dimethylphenol
DATA FILE <u>2CUQ4135CO3</u> IC. FACTOR 1				4		
FILE 22	AN EPA	21A	22A	24A	31A	34A
DATA FILE CONC. FACTOR	NPDES SCAN	118	8₩	<b>₹</b> <b>4</b>	≴ 43	∯ 3

SURROGATE RECOVERIES

**57A** 

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2-nitrophenol

RESULT	d5-pheno163%	phenol 79%	pheno1 78%	d3-phenol
COMPOUND	- D	2-fluorophenol_	2, 4, 6-tribromophenol_	43-
SCAN CODE	460 AS1	343 AS2	1091 AS3	AS4

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in

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SAMPLE ID HM-101 860228 HZD BNA

Analytical Serv

REPORT Results by Sample

LAB # 86-04-135

Continued From Above

FRACTION <u>O2A</u> TEST CODE <u>M625 A</u> NAME Method 625 Acid Compounds Date & Time Collected 04/18/86

ND = not detected at EPA detection limit method 625, (Federal Register, 11/26/84). BL = detected in reagent blank, background subtraction not performed.

J = estimated value; less than method detection limit. CONC. FACTOR:

indicates dilution of sample if greater than one (1). factor. limits should be multiplied by conc.

Minimum detection

	LAB # 86-04-135	B NAME Method 625 Base/Neutrals Category	TE COMPOUNDS DETECTED 3	COMPOUND	N-nitrosodimethylamine ND	N-nitrosodiphenylamine ND	N-nitrosodi-n-propylamine ND	bis(2-ethylhexyl)phthalate 4	butyl benzyl phthalate ND	di-butyl phthalate 4 BL	di-n-octyl phthalate ND	diethyl phthalate ND	dimethyl phthalate ND	benzo(a)anthracene A ND	benzo(a)pyrene	benzo(b)fluoranthene * ND	benzo(k)fluoranthene * ND	chrysene A ND	acenaphthylene ND	anthracene B ND
	RI	TEST CODE M625 ected 04/18/86	ANALYST INSTRUMENT	AN EPA	61B	62B	<b>829</b>	42 66B	67B	02 68B	869	70B	718	72B	738	74B	758	76B	77B	788
	REPORT by Sample	TEST CO.	INS	NPDES SCAN	41B	43B	42B	13B 1642	158	26B 1302	29B	24B	25B	<b>SB</b>	<b>89</b>	78	98	188	2B	38
	ب دب دب	FRACTION OZA TEST CODE M625 Date & Time Collected 04/18/86	04/23/86 04/28/86	RESULT !	9	QN	Q	Q	Q	QN	Q V	Q	2	CIN	QN	<b>S</b>	Q	Q	Q.	2
	Analytical	SAMPLE ID HM-101 860228 H20 BNA FRACTION Date &	2CU04135C03 DATE EXTRACTED DATE INJECTED	COMPOUND	acenaphthene	benzidine	1, 2, 4-trichlorobenzene	hexachlorobenzene	hexachloroethane	bis(2-chloroethyl)ether	2-chloronaphthalene	1, 2-dichlorobenzene	1, 3-dichlorobenzene	1, 4-dichlorobenzene	3,3'dichlorobenzidine	2, 4-dinitrotoluene	2, 6-dinitrotoluene	1, 2-diphenylhydrazine	fluoranthene	4-chlorophenyl phenyl ether
	04/23/86	五-101		EPA	<b>8</b>	38	88	<b>8</b>	128	188	20B	258	<b>26B</b>	27B	28B	358	368	37B	398	40B 4
	PAGE 12 Received:	SAMPLE ID	DATA FILE CONC. FACTOR	NPDES SCAN	18	48	468	338	89E 4	<b>9</b> 1 4	891 35	208	218	22B	23B	278	288	298	318	17B
0000000	X4643X67			ÑX.		222										1				

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LAB # 86-04-135 Continued From Above

Serv REPORT Results by Sample

Analytical Serv

PAGE 13 RECEIVED: 04/23/86

14B 4-bromophenyl phenyl e 12B 42B bis(2-chlorosthoxy)mel 10B 43B bis(2-chlorosthoxy)mel 34B 52B hexachlorocyclopentac 39B 54B isophc 39B 55B naphtha 40B 55B naphtha 58B 55B
428 428 528 548 548 568 500E 100E 883 883 883

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). uq/1 unless otherwise specified. SCAN = scan number or retention time on chromatogram. All results reported in\_

≈ benzo(a)anthracene and chrysene co-elute in high concentrations = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.

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#### RAMPINAN COR

Analytical Serv SAMPLE ID HM-101 860228 HZO BNA RECEIVED: 04/23/86

Results by Sample

REPORT

Continued From Above LAB # 86-04-135

NAME Method 625 Base/Neutrals BL = detected in reagent blank; background subtraction not performed FRACTION OZA TEST CODE M625 B Date & Time Collected 04/18/86  $\mathbf{B}$  = anthracens and phenanthrens co-slute in high concentrations.

J = estimated value; less than method detection limit.

limits should be multiplied by conc. factor.

Category

Minimum detection indicates dilution of sample if greater than one (1).

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#### MATACINA

PAGE 15 RECEIVED: 04/23/86

Analytical Serv REPORT Results by Sample

LAB # 86-04-135

SAMPLE ID HM-101 860228 H20 BNA

NAME Pesticides & PCBs by GC/MS Category FRACTION 02A TEST CODE MS 608
Date & Time Collected 04/18/86

COMPOUNDS DETECTED BY LAK	COMPOUND	alpha BHC ND	beta BHC ND	Gramma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PCB-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene	
ANALYST	NPDES SCAN EPA	2P 102P	3P 103P	4P 104P	5P 105P	18P 106P	199 1079	20P 108P	21P 109P	22P 110P	23P 111P	24P 112P	25P 113P	
<u>04/23/86</u> 04/28/86	RESULT NPI	Q	Q	QN	Q	Q	Q	Q	Q	9	Q	R	Q.	Q
DATE EXTRACTED DATE INJECTED	COMPOUND	aldrin	dieldrin	chlordane	4,4'-001	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor	heptachlor epoxide
DATA FILE <u>2CU04135C03</u> IC. FACTOR	EPA	896	90P	916	92P	4E6	94P	93P	96P	97P	486	466	100P	101P h
DATA FILE CONC. FACTOR	NPDES SCAN	16	10P	49	7P	а 4	ֆ <b>4</b> 3	8 11P	12P	14P	14P	15P	16P	17P

## CORPORATION

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SAMPLE ID HM-101 860228 HZD BNA

Serv REPORT RESULTS by Sample Analytical Serv

FRACTION 02A TEST CODE MS 608 Date & Time Collected 04/18/86

LAB # 86-04-135 Continued From Above

NAME Pesticides & PCBs by GC/MS

Category

AND DEFINITIONS FOR THIS REPORT. NOTES

SCAN = scan number on chromatogram.

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified.

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PAGE 17 RECEIVED: 04/23/86

Results by Sample Analytical Serv

LAB # 86-04-135

REPORT

SAMPLE ID Reagent Blank H20

FRACTION 03A TEST CODE M625 A NAME Method 625 Acid Compounds Date & Time Collected not specified Category

Category

COMPOUNDS DET	INSTRUMENT #2	DATE INJECTED <u>04/28/86</u>	CONC. FACTOR 1
VERIFI		DATE EXTRACTED 04/23/86	DATA FILE 20804135003
			• •

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RESULT

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u.	•	•	,	•	•	
COMPOUND	4-nitrophenol	2, 4-dinitrophenol	2-methyl-4, 6-dinitrophenol	pentachlorophenol	phenol	
EPA	<b>28A</b>	<b>39A</b>	<b>604</b>	64A	<b>63A</b>	
RESULT NPDES SCAN	47	Š	4	<b>6</b>	10A	
RESULT	Q	Q	QN	Q	Q	Q
COMPOUND	2, 4, 6—trichlorophenol	4-chloro-3-methylphenol	2-chlorophenol	2, 4-dichlorophenol	2,4-dimethylphenol	2-nitrophenol
EPA	21A	22A	24A	31A	344	57A
NPDES SCAN	. 11A	<b>8</b>	₹ 4	* 4	系 40	<b>6</b>

#### SURROGATE RECOVERIES

RESULT	d5-phenol 69%	2-fluorophenol 67%	omaphenol 52%	d3-phenol
COMPOUND		2-410	2, 4, 6—tribromaphenol	
SCAN CODE	461 AS1	345 AS2	1091 AS3	AS4

NOTES AND DEFINITIONS FOR THIS REPORT.

ug/l unless otherwise specified. SCAN = scan number or retention time on chromatogram All results reported in

## CORPORATION

REPORT Samp le	TEST CODE
Analytical Serv REPORT Results by Sample	FRACTION 03A
04/23/86	SAMPLE ID Reagent Blank H2D
PAGE 18 Received:	SAMPLE 1D

LAB # 86-04-135 Continued From Above

detection limit method 625, (Federal Register, ND = not detected at EPA detection limit method 625, (Federal Registe BL = detected in reagent blank, background subtraction not performed. FRACTION 03A TEST CODE M625 A N Date & Time Collected not specified

11/26/84).

NAME Method 625 Acid Compounds

Category

Minimum detection

indicates dilution of sample if greater than one (1). J m estimated value; less than method detection limit.

factor.

limits should be multiplied by conc.

CONC. FACTOR:

## CORPORATION

RECEIVED: 04/23/86

REPORT Results by Sample Analytical Serv

LAB # 86-04-135

NAME Method 625 Base/Neutrals Category Date & Time Collected not specified TEST CODE M625 B FRACTION 03A SAMPLE ID Reagent Blank H20

LAK 윋 밀 S 9 9 月 9 9 뮏 9 9 뮏 月 2 月 RESULT COMPOUNDS DETECTED VERIFIED BY N-nitrosodi-n-propylamine butyl benzyl phthalate diethyl phthalate dimethyl phthalate benzo(a)pyrene N-nitrosodimethylamine N-nitrosodiphenylamine bis(2-ethylhexyl)phthalate di-butyl phthalate di-n-octyl phthalate acenaphthylene benzo (a ) anthracene benzo(k)fluoranthene anthracene benzo(b)fluoranthene chrysene COMPOUND £2 EPA 61B 62B 63B 66B 67B **889** 718 INSTRUMENT **869** 70B 72B 73B 74B 75B **76B 77B ANALYST 78B** 1305 NPDES SCAN **26B 41B** 43B 42B 13B 15B **29B** 24B 25B 38 **6B 7B 9B** 18B **58** 38 DATE EXTRACTED 04/23/86 DATE INJECTED 04/28/86 RESULT 月 9 呈 旲 月 문 2 윋 밁 月 뮏 윋 月 밁 月 윋 acenaph thene benzidine 1, 2, 4-trichlorobenzene 1, 2-dichlorobenzene hexachlorobenzene hexachloroethane bis(2-chloroethyl)ether 2-chloronaphthalene 1, 3-dichlorobenzene 1, 4-dichlorobenzene 3, 3'dichlorobenzidine 2, 4-dinitrotoluene 2,6-dinitrotoluene 1,2-diphenylhydrazine 40B 4-chlorophenyl phenyl ether fluoranthene COMPOUND DATA FILE 2CB04135C03 EPA 88 18B 26B 28B 36B 37B **H SB** 12B 20B 25B 27B 35B **39B 86** CONC. FACTOR NPDES SCAN 46B 33B 36B 1 1B 16B 20B 21B 22B 23B **27B 28B 29**B 31B 17B **4B** 4 442

### KADIAH Corporation BALLE WESTERN WASSES

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at EPA detection limit method 625, (Federal Register, 10/26/84). All results reported in <u>uq/l</u> unless otherwise specified. SCAN = scan number or retention time on chromatogram

 $\star$  = benzo(b)fluoranthene and benzo(k)fluoranthene co-elute.

= benzo(a)anthracene and chrysene co-elute in high concentrations.

RECEIVED: 04/23/86

Results by Sample Analytical Serv

LAB # 86-04-135 Continued From Above

SAMPLE ID Reagent Blank H20

FRACTION 03A TEST CODE M625 B NAME Method 625 Base/Neutrals Date & Time Collected not specified Category

Category

Minimum detection

 $B~\mp$  anthracene and phenanthrene co-elute in high concentrations. = detected in reagent blank;

background subtraction not performed. J = estimated value; less than method detection limit. indicates dilution of CONC. FACTOR:

sample if greater than one (1). limits should be multiplied by conc. factor.

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\*\*\* 22 \*\*CEIVED 04/23/86

LAB # 86-04-135

SAMPLE ID Reagent Blank H20

FRACTION 03A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category Analytical Serv REPORT Results by Sample

VERIFIED B COMPOUNDS DETECTE
ANALYST
DATE EXTRACTED 04/23/86 DATE INJECTED 04/28/86
DATA FILE 2CB04135C03

COMPOUNDS DETECTED BY LAK	COMPOUND	alpha BHC ND	beta BHC ND	gamma BHC ND	delta BHC ND	PCB-1242 ND	PCB-1254 ND	PCB-1221 ND	PCB-1232 ND	PC8-1248 ND	PCB-1260 ND	PCB-1016 ND	toxaphene ND	
ANAL YST	SCAN EPA	102P	103P	104P	105P	106P	107P	108P	109P	110P	1111	112P	1136	
	NPDES S	8	ě	4	an B	186	199	20P	21P	22P	23P	24P	25P	
04/23/86 04/28/86	RESULT N	Q	Q	QN	GN CN	Q	Q	Q	Q	Q	Q	QN	QN	S
DATE EXTRACTED DATE INJECTED	COMPOUND	aldrin	dieldrin	chlordane	4, 4'-DDT	4, 4'-DDE	4, 4'-DDD	alpha endosulfan	beta endosulfan	endosulfan sulfate	endrin	endrin aldehyde	heptachlor	heptachlor epoxide
DATA FILE 20804135003 IC. FACTOR	SCAN EPA	896	906	916	926	93P	946	95P	496	97P	486	466	100P	1016
CONC	NPDES	10	106	<b>6</b> 9	4	8	db	111	12P	14P	14P	15P	16P	17P
					<b>4</b>	4 <u>4</u> ندت	45 ՃՀ	L						<u> </u>

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Analytical Serv Results by Sample

REPORT

LAB # 86-04-135 Continued From Above

SAMPLE ID Reagent Blank H20

NOTES AND DEFINITIONS FOR THIS REPORT.

FRACTION 03A TEST CODE MS 608 NAME Pesticides & PCBs by GC/MS Date & Time Collected not specified Category

Category

ND = not detected at EPA detection limit method 625, (Federal Register, 12/3/79). All results reported in micrograms/liter unless otherwise specified. SCAN = scan number on chromatogram.

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\$ Page 1 \$ Received: 04/25/86	RAS -	Austin 06/26/86 15:01:58	ORT	Work Order # 86-04-164
REPORT Radion TO B1 4		PREPARED Radian Analyti BY 8501 Mo-pac B1 PO Box 9748	cal Services	L'ange Me
ATTEN Larry French		ATTEN AUSTIN, IX /	1673	CERTIFIED OF
	SAMPLES 3			CONTACT CUNDVER
FACILITY General Dynamics		#-Sample was dilut	1 1:10 and	ue to poor analutical
WORK ID 2 samples		spike recovery. The able limits, indicati	spike recovery. The resulting recovery was able limits, indicating matrix interference	as not within accept— ce.
TRANS		Footnotes and Comments	lents	
P 0 # 212-027-27-40 INVOICE under separate cove	e r	* Indicates a value Potential error for	less such	than 5 times the detection limit. low values ranges between 50 and 100%.
4 44		@ Indicates that s specific matrix wa an interferent pre	@ Indicates that spike recovery for this analysis on the specific matrix was not within acceptable limits indicating an interferent present.	analysis on the e limits indicating
	i i	-	TEST CODES and NAMES used on this report	his report
OS trip blank	AS G	Arsenic, graphite Barium, ICPES Cadmium, ICPES	AA	
	CR E D63020 D64010		3020 6010	

XXXXXXI AMARRI COCCOOL ZARARI MARRIO SESSESSI ESCESSIS ECCESSIS ECCESSIS ECCESSIS ESCESSIS ESCESSES

Digestion, method 6010

Selenium, graphite AA

Mercury, cold vapor Lead, graphite AA

EPA601 EPA602 HG C PB G SE G

EPA method 602 EPA method 601

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04/25/86 )E   Sample units   (entered t	RAS			Work Order	# 86-04-164
Samp		Results By	Test		
	ple 01 ed units)	Sample 02 (entered units)			
	0.010*	0.13@			
	0.015	<. 02			
	090.0	0. 26			
	<. 002	<. 02e			
·	0.015*	0.24*			
. 05/	98/60/50	98/60/50			
	05/09/86	05/09/86			
<u></u> -	0.023	0.044			
<b>-</b>	₹03#	€: 003			

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itin Results by Sample - Austin RAS

Work Order # 86-04-164

SAMPLE ID 860225

FRACTION 01B TEST CODE EPA601 Date & Time Collected 04/18/86

Category

NAME EPA method 601 VERIFIED FILE # R P

09/1 G UNITS

DET LIMIT 0.18 0.080 RESULT 윋 Q S INJECTD 04/28/86 Chloromethane Bromomethane Vinyl chloride COMPOUND 74-87-3 74-83-9 75-01-4 CAS# ANALYST INSTRMT

S S Chloroethane Methylene chloride

75-00-3

4

75-09-2

449

75-69-4

75-35-4

75-34-3

156-60-5

0.52

0.25

0.13 NAN 윋 S Trichlorofluoromethane 1, 1-Dichloroethene

0.070 윋 1, 1-Dichloroethane

0.10 윋 trans-1,2-Dichloroethene

0.050 0.030 ĝ 呈 Chloroform

0.030 밁 1, 2-Dichloroethane 1, 1, 1-Trichloroethane

0. 12 2

56-23-5

75-27-4

71-55-6

107-06-2

67-66-3

S Carbon tetrachloride Bromodichloromethane

0.10

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Work Order # 86-04-164 Continued From Above

REPORT

- Austin

RAS

Received: 04/25/86

Page 4

Results by Sample

NAME EPA method 601 Category FRACTION OIB TEST CODE EPA601 Date & Time Collected 04/18/86 RESULT DET LIMIT 0.34 0.12 0.020 0.040 0. 20 0.13 0. 20 0.030 0.030 0.25 0.32 0.000 0.15 0.24 105 % Recovery % Recovery % Recovery 2 S S 2 일 밁 S S S 밁 윋 呈 2 S 1,2-Dichloropropane trans-1,3-Dichloropropene Trichloroethene **Bromochloromethane** Dibromochloromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene 2-Chloroethylvinyl ether Bromoform 1, 1, 2, 2-Tetrachloroethane Tetrachloroethene Chlorobenzene 1, 3-Dichlorobenzene 1-4-Dichlorobutane 1,2-Dichlorobenzene 1, 4-Dichlorobenzene SURROGATES 2-Bromo-1-chloropropane COMPOUND SAMPLE 1D 860225 78-87-5 10061-02-6 79-01-6 79-00-5 10061-01-5 110-75-8 79-34-5 75-25-2 127-18-4 108-90-7 124-48-1 74-97-5 3017-95-6 110-56-5 541-73-1 106-46-7 95-50-1 CAS# 450

# Enter a la company de la co Enternación de la company de l

Received: 04/25/86 SAMPLE ID 860225 Page 5

- Austin RAS

stin Results by Sample

Work Order # 86-04-164 Continued From Above

NAME EPA method 601 Category

FRACTION 01B TEST CODE EPA601 Date % Time Collected 04/18/86

% Recovery

1-Bromo-4-fluorobenzene

460-00-4

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit

N\A= not available

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13.55

Received: 04/25/86 Page 6

Results by Sample Austin RAS

REPORT

Work Order # 86-04-164

SAMPLE 1D 860225

FRACTION 01C TEST CODE EPA602 Date & Time Collected 04/18/86

NAME EPA method 602 Category

MCL VERIFIED

UNITS

RESULT DET LIMIT

2

0.5

7.02

0

1.16

0.2

N

0

윋

1, 4-Dichlorobenzene

106-46-7

541-73-1

95-50-1

0.4

2

1,2-Dichlorobenzene

0.4

2

1, 3-Dichlorobenzene

COMPOUND Toluene Benzene Ethylbenzene Chlorobenzene FILE # INJECTED 04/28/86 CAS# 71-43-2 108-88-3 100-41-4 108-90-7 리 ANALYST INSTRMI 452 SURROGATES

102% recovery a, a, a-Trifluorotoluene

8-80-86

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit

N\A = not available

RAS

- Austin

Received: 04/25/86

SAMPLE 1D 860225

nstin Results by Sample

Work Order # 86-04-164 NAME Mercury, cold vapor

FRACTION O1A TEST CODE HG C Date & Time Collected 04/18/86

Category

GCL VERIFIED

UNITS

0.00020

S

Mercury

DET LIMIT

ANALYTE RESULT

ANALYZED 05/14/86

DES 403

ANALYST INSTRMT

ND = not detected at detection limit NOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

\* = less than 5 times the detection limit N\A = not available NA = not analyzed

Page 8 Received: 04/25/86

Austin Results by Sample

Work Order # 86-04-164

RAS

NAME EPA method 601 Category FRACTION 02B TEST CODE EPA601 Date & Time Collected 04/18/86 SAMPLE ID 860228

DET LIMIT	0.080	1.2	0.18	0. 52	0.25	W/N	0.13	0.070	0.10	0.050	0.030	0.030	0.12	0.10
RESULT	N	N	N	QN	Q	CZ	Q	Q	Q	Q	Q	Q	Q	QN
COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1,1,1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
CAS#	74-87-3	74-83-9	75-01-4	75-00-3	75-09-2	75-69-4	75-35-4	75-34-3	156-60-5	67-66-3	107-06-2	71-55-6	56-23-5	75-27-4
	COMPOUND RESULT	Chloromethane ND	Chloromethane ND Bromomethane ND	Chloromethane ND Bromomethane ND Vinyl chloride ND	Chloroethane ND Bromomethane ND Vinyl chloride ND Chloroethane ND	Chloromethane ND Bromomethane ND Vinyl chloride ND Chloroethane ND Methylene chloride ND	CAS#  74-87-3  Chloromethane  ND  74-83-9  Promomethane  Ninyl chloride  ND  75-01-4  Vinyl chloroethane  ND  75-00-3  Methylene chloride  ND  75-69-4  Trichlorofluoromethane  ND	CAS#  74-87-3  Chloromethane  74-83-9  Bromomethane  ND  75-01-4  Vinyl chloride  ND  75-00-3  Chloroethane  ND  75-09-2  Methylene chloride  ND  75-69-4  Trichlorofluoromethane  ND  75-35-4  1,1-Dichloroethene  ND	CAS#         COMPOUND         RESULT           74-87-3         Chloromethane         ND           74-83-9         Bromomethane         ND           75-01-4         Vinyl chloride         ND           75-00-3         Chloroethane         ND           75-09-2         Methylene chloride         ND           75-69-4         Trichlorofluoromethane         ND           75-35-4         1,1-Dichloroethane         ND           75-34-3         1,1-Dichloroethane         ND	CAS#  74-87-3  Chloromethane  74-83-9  Bromomethane  ND  75-01-4  Vinyl chloride  ND  75-00-3  Chloroethane  ND  75-09-2  Methylene chloride  ND  75-69-4  Trichlorofluoromethane  ND  75-35-4  1,1-Dichloroethane  ND  75-34-3  1,1-Dichloroethane  ND  75-60-5  trans-1,2-Dichloroethene  ND	CAS#         COMPOUND         RESULT           74-87-3         Chloromethane         ND           74-83-9         Bromomethane         ND           75-01-4         Vinyl chloride         ND           75-00-3         Chloroethane         ND           75-09-2         Methylene chloride         ND           75-69-4         Trichlorofluoromethane         ND           75-35-4         1,1-Dichloroethane         ND           75-34-3         1,1-Dichloroethane         ND           156-60-5         trans-1,2-Dichloroethane         ND           67-66-3         Chloroform         ND	CAS#         COMPOUND         RESULT           74-87-3         Chloromethane         ND           74-83-9         Bromomethane         ND           75-01-4         Vinyl chloride         ND           75-00-3         Chloroethane         ND           75-09-2         Methylene chloride         ND           75-69-4         Trichlorofluoromethane         ND           75-35-4         1,1-Dichloroethane         ND           75-34-3         1,1-Dichloroethane         ND           156-60-5         trans-1,2-Dichloroethane         ND           67-66-3         Chloroform         ND           107-06-2         1,2-Dichloroethane         ND	CAS#         COMPOUND         RESULT           74-87-3         Chloromethane         ND           74-83-9         Bromomethane         ND           75-01-4         Vinyl chloride         ND           75-00-3         Methylene chloride         ND           75-69-4         Trichlorofluoromethane         ND           75-35-4         1,1-Dichloroethane         ND           75-34-3         1,1-Dichloroethane         ND           156-60-5         trans-1,2-Dichloroethane         ND           107-06-3         Chloroform         ND           107-06-2         1,2-Dichloroethane         ND           107-06-2         1,1,1-Trichloroethane         ND	CAS#         COMPOUND         RESULT           74-87-3         Chloromethane         ND           74-83-9         Bromomethane         ND           75-01-4         Vinyl chloride         ND           75-00-3         Chloroethane         ND           75-09-2         Methylene chloride         ND           75-69-4         Trichlorofluoromethane         ND           75-34-3         1,1-Dichloroethane         ND           156-60-5         trans-1,2-Dichloroethane         ND           107-06-2         1,2-Dichloroethane         ND           71-55-6         1,1,1-Trichloroethane         ND           71-55-6         1,1,1-Trichloroethane         ND           71-55-6         1,1,1-Trichloroethane         ND           71-55-6         1,1,1-Trichloroethane         ND           56-23-5         Carbon tetrachloride         ND

	3 1000	ts og samp	Sample	Continued From Above
į	FRACTION O	O2B TES	O2B TEST CODE EPA601 me Collected 04/18/86	NAME EPA method 601 Category
	COMPOUND	RESULT	DET LIMIT	
	1,2-Dichloropropane	QN	0.040	
7	trans-1, 3-Dichloropropene	QN	0.34	
P.	Trichloroethene	QN	0.12	
10	Dibromochloromethane	QN	0.090	
h 1	, 1, 2-Trichloroethane	QN QN	0.020	
101	cis-1,3-Dichloropropene	Ñ	0. 20	
vin	2-Chloroethylvinyl ether	QN	0.13	
8	Bromoform	QN	0. 20	
h 1 o 1	1, 1, 2, 2-Tetrachloroethane	Q	0.030	
h 1 o1	Tetrachloroethene	Q	0.030	
lord	Chlorobenzene	QN	0.25	
101	1, 3-Dichlorobenzene	Q	0.32	
lor	1,2-Dichlorobenzene	QN	0.15	
lor	1,4-Dichlorobenzene	QN	0.24	
SUF	SURROGATES			
lorc	Bromochloromethane	111 % R	Recovery	
loro	2-Bromo-1-chloropropane	, R	Recovery	
hlor	1-4-Dichlorobutane	" R	% Recovery	

# 

Page 10

Received: 04/25/86

SAMPLE 1D 860228

itin REPORT Results by Sample Austin

RAS

Work Order # 86-04-164 Continued From Above

NAME EPA method 601 Category

460-00-4

1-Bromo-4-fluorobenzene

FRACTION 02B TEST CODE EPA601 Date & Time Collected 04/18/86

% Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

\* = less than 5 times the detection limit NA = not analyzed

N\^= not available

# 

Received: 04/25/86

Results by Sample Austin RAS

REPORT

Work Order # 86-04-164

SAMPLE ID 860228

FRACTION O2C TEST CODE EPA602 Date & Time Collected 04/18/86

NAME EPA method 602 Category

VERIFIED

A O ANALYST INSTRMT

FILE #

UNITS

INJECTED 04/28/86

CAS#

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

541-73-1

95-50-1

RESULT DET LIMIT 밁 COMPOUND

Benzene

일

Toluene

0.5

S

Ethylbenzene

0.2

S

Chlorobenzene

0.3

2

1, 4-Dichlorobenzene

1, 3-Dichlorobenzene

0.4

Š

4

1, 2-Dichlorobenzene

물

SURROGATES

98% recovery

a, a, a-Trifluorotoluene

8-80-86

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

\* = less than 5 times the detection limit N\A = not available

457

Page 12 Received: 04/25/86

SAMPLE ID 860228

RAS

- Austin Results by Sample

NAME Mercury, cold vapor Category

Work Order # 86-04-164

FRACTION 02A TEST CODE HG C Date % Time Collected 04/18/86

VERIFIED

403 INSTRMI ANALYST

ANALYZED 05/14/86

UNITS

RESULT ANALYTE 0.00020

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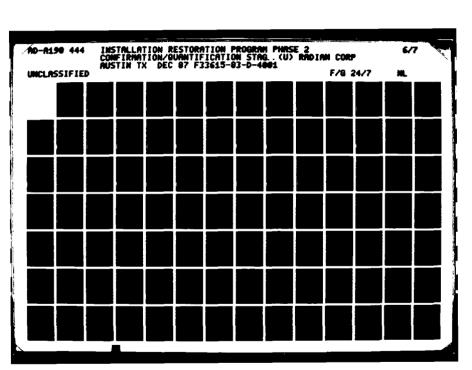
Mercury

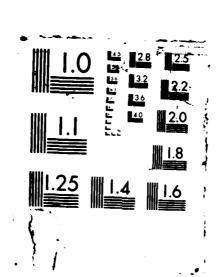
DET LIMIT

NOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

\* = less than 5 times the detection limit N\A = not available





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Received: 04/25/86 Page 13

- Austin RAS

Results by Sample

REPORT

Work Order # 86-04-164

SAMPLE ID trip blank

FRACTION 03A TEST CODE EPA601 NAME EPA method 601 Date & Time Collected not specified

Category

**1760** VERIFIED UNITS DET LIMIT 0.18 0.13 0.070 0.10 0.080 0.52 0.25 A/N 0.050 0.030 0. 12 0 10 0.030 S FILE # RESULT 呈 2 2 2 S 2 윋 S 뮏 S ᄝ 밁 S INJECTD 04/28/86 Chloromethane Vinyl chloride Chloroethane Methylene chloride Bromomethane **Trichlorofluoromethane** 1,1-Dichloroethene 1,1-Dichloroethane trans-1,2-Dichloroethene Chloroform 1,2-Dichloroethane 1, 1, 1-Trichloroethane Carbon tetrachloride Bromodichloromethane COMPOUND R 74-87-3 74-83-9 75-01-4 75-00-3 75-34-3 156-60-5 71-55-6 75-09-2 75-69-4 75-35-4 67-66-3 107-06-2 56-23-5 75-27-4 CAS# **ANALYST** INSTRMT 459 4

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2567 kessesses 1000000	
Accordance assessed and resident assessed	(
	CORPORATION
Secretary of the second	7,73.

Received: 04/25/86 Page 14

Work Order # 86-04-164 Continued From Above NAME EPA method 601 Category FRACTION 03A TEST CODE EPA601 N Date & Time Collected not specified RESULT DET LIMIT 0.34 0.12 0.000 0.020 0. 20 0.13 0.20 0.030 0.030 0.25 0.15 0.040 0.32 0.24 98 % Recovery % Recovery % Recovery Results by Sample 2 2 S S S 일 뒫 2 S 일 윋 일 2 S - Austin 1,2-Dichloropropane trans-1,3-Dichloropropene Bromoform Bromochloromethane Trichloroethene cis-1, 3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane Tetrachloroethene 1,4-Dichlorobenzene 2-Bromo-1-chloropropane Dibromochloromethane 1, 1, 2-Trichloroethane 2-Chloroethylvinyl ether Chlorobenzene 1, 3-Dichlorobenzene 1,2-Dichlorobenzene SURROGATES 1-4-Dichlorobutane COMPOUND RAS SAMPLE ID trip blank 78-87-5 10061-02-6 79-00-5 10061-01-5 110-75-8 75-25-2 79-34-5 108-90-7 79-01-6 127-18-4 74-97-5 3017-95-6 110-56-5 124-48-1 106-46-7 541-73-1 95-50-1 CAS#

460

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TORIGON SENSON LITERAL SENSONS SOUTHING SOUTHING SENSONS

## K KINIKA KI CHA

Received: 04/25/86 Page 15

RAS

tin Results by Sample - Austin

Work Order # 86-04-164 Continued From Above

SAMPLE ID trip blank

FRACTION 03A TEST CODE EPA601 NA Date & Time Collected not specified

NAME EPA method 601 Category

% Recovery

1-Bromo-4-fluorobenzene

460-00-4

NOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

\* = less than 5 times the detection limit ND = not detected at detection limit NA = not analyzed N\A= not available

Received: 04/25/86 Page 16

Austin RAS

Work Order # 86-04-164

Results by Sample

SAMPLE ID trip blank

FRACTION 03B TEST CODE EPA602 NAME EPA method 602 Date & Time Collected not specified Category

AC L VERIFIED

Category

FILE # INJECTED 04/28/86

INSTRMT

ANALYST

UNITS

RESULT DET LIMIT COMPOUND

CAS#

71-43-2

108-88-3

100-41-4

108-90-7

일 Benzene Toluene

2 Ethylbenzene

0.2

0 S 2 Chlorobenzene 1, 4-Dichlorobenzene

0.4 0.4 2 S 1, 3-Dichlorobenzene 1,2-Dichlorobenzene

SURROGATES

102% recovery a, a, a-Trifluorotoluene 8-80-86

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

\* = less than 5 times the detection limit N\A = not available NA = not analyzed

462

106-46-7

541-73-1

Work Order # 86-04-164

RAS - Austin NonReported Work

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE SPARE SPARE 01D 02D

01E 02E

463

SPARE SPARE

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	Work Order # 56-08-034	CERTIFIED BY CONTACT CONQVER	d on this report	
	Sacramento 09/15/86 15:26:48	PREPARED Radian Analutical Services BY 8501 Mo-pac 81. PO 80x 9948 Austin, TX 78751 ATTEN PHONE 512-454-4797	TEST CODES and NAMES used on this report  808 Semivolatile Extraction 608 Pesticides by GCNMS  608 Pesticides by GCNMS	
RADIAN	Page 1 Received: 08/23/86	REPORT Radian TO 81.4 Austin ATTEM Larry French CLIENT PLANT4 COMPANY Plant 4, USAF FACILITY General Dunamics	MORK ID Ground water  TAKEN B/21/86 W. Johnson  TRANS FEGERA1906220147  TYPE H20  TYPE	

Amento REPORT Work Order # 56-08-034  Results By Test  Sample 02 Sample 03 Sample 04 Sample 05  Lered units) (entered units) (entered units)  08/25/86 08/25/86 08/25/86
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	Page 3 Received: 08/23/86	RAS	Sacramento REPORT Results By Test	Work Order	<b># 56-08-034</b>	22.49%-012.494%-014K
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<i>W</i>	03	08/22/86			•	201 AC.
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		08/25/86				. 0.1. (2.1. ()
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	)					9. V.N.

Page 4 Received: 08/23/86

RAS Sacramento REPORT Results by Sample

Work Order # 56-08-034

Category SAMPLE # 01 FRACTIONS: A Date & Time Collected 08/21/86 SAMPLE ID 860257 EX BNA 08/25/86

467

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Work Order # 56-08-034

nento REPORI Results by Sample

Sacramento

RAS

Received: 08/23/86

Page 5

NAME Semivolatile Organics H2O VERIFIED 1/60 Category UNITS DET LIMIT 9 밀밀 2 TEST CODE CL 625 일일일일일 일일 9 밁 밁 밁 일 일일 밁 9 밁 RESULT FILE # 5000034001 Date & Time Collected 08/21/86 DRGANICS ANALYSIS DATA SHEET SEMIVOLATILE COMPOUNDS n-nitroso-di-n-propylamine 1, 2, 4-trichlorobenzene naphthalene n-nitrosodimethylamine aniline bis(2-chloroethyl) ether 1, 3-dichlorobenzene 1, 4-dichlorobenzene 1, 2-dichlorobenzene bis(2-chloroisopropy1)ether hexachloroethane nitrobenzene benzoic acid bis(2-chloroethoxy)methane 4-chloroaniline hexachlorobutadiene alene phenol benzyl alcohol 2-methylphenol 4-methylphenol isophorone 2-nitrophenol 2,4-dimethylphenol 2,4-dichlorophenol 4-chloro-3-methylphenol 2-chlorophenol COMPOUND 2-methylnap FRACTION 01A EXTRCTD 08/25/86 INJECTD 09/05/86 95-57-8 98-95-3 88-75-5 05-67-9 65-85-0 20-83-2 20-82-1 91-20-3 06-47-B 87-68-3 59-50-7 62-75-9 62-53-3 100-51-6 106-44-5 11-91-1 08-95-2 106-46-7 78-59-1 11-44-4 95-48-7 521-64-7 67-72-1 541-73-1 95-50-1 08-60-1 CAS # 5100 SAMPLE 10 860257 SCAN ANALYST INSTRMI

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bearings.

Received: 08/23/86 Page 6

NAME <u>Semivolatile Organics H2O</u> Work Order # 56-08-034 Continued From Above Category DET LIMIT FRACTION O1A TEST CODE CL 625 일의의의의의의의의의의의의 RESULT 밀밀밀밀 일일일일일 Date & Time Collected 08/21/86 nento REPORT Results by Sample 2, 4-dinitrotoluene hexachlorocyclopentadiene 2, 4, 6—trichlorophenol 2, 4, 5—trichlorophenol 2-chloronaphthalene dimethyl phthalate acenaphthene dibenzofuran 2,6-dinitrotoluene diethylphthalate 4-chlorophenyl-phenylether 4-nitroaniline phenanthrene di-n-butylphthalate fluoranthene 2-nitroaniline acenaphthylene 3-nitroaniline fluorene 4,6-dinitro-2-methylphenol n-nitrosodiphenylamine 4-bromophenyl-phenylether hexach lorobenzene pentachlorophenol anthracene 2,4-dinitrophenol 4-nitrophenol COMPOUND Sacramento RAS 85-01-8 120-12-7 534-52-1 86-30-6 121-14-2 7005-72-3 92-87-5 208-96-B 99-09-2 83-32-9 132-64-9 606-20-2 84-66-2 86-73-7 84-74-2 206-44-0 77-47-4 88-06-2 95-95-4 91-58-7 88-74-4 131-11-3 51-28-5 100-05-7 00-01-06 101-55-3 87-86-5 118-74-1 CAS SAMPLE 1D 860257 SCAN

밀밀

benzidine

pyrene

butylbenzylphthalate 3'-dichlorobenzidine

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91-94-1

29-00-0 85-68-7 56-55-3 117-81-7

1661

benzo(a)anthracene

bis(2-ethylhexyl)phthalate

FRACTION 01A Sacramento RAS Page 7 Received: 08/23/86 SAMPLE ID 860257

nento REPORT Results by Sample

Work Order # 56-08-034 Continued From Above

NAME Semivolatile Organics H2O 567 TECT FORE FI

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	Date & Time Collected OF	3/21/86	Catego
# ∀ V	CNICOMOS	F 500	
01010		1200	מייים בייים
4-10-013			K. U
117-84-0	di-n-octyl phthalate	QN	Z.
202-66-5	benzo(b)fluoranthene	QN	4
207-08-9	benzo(k)fluoranthene	QN	מי
50-32-8	benzo(a)pyrene	ON	<u>0</u>
193-39-5	indeno(1, 2, 3-cd)pyrene	QN	3. 7
53-70-3	dibenz(a,h)anthracene	ND	2.5
191-24-2	benzo(ghi)perylene	Q	4.1
7	CAS # 218-01-9 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5 53-70-3	Date & Time Coll chr di-n-octyl phth benzo(b) fluoran benzo(k) fluoran benzo(k) aluoran benzo(a) pindeno(1,2,3-cd) p dibenz(a,h) anthr	Date & Time Collected 08/21/86  chrysene Chrysene ND di-n-octyl phthalate ND benzo(b) fluoranthene ND benzo(k) fluoranthene ND benzo(a) pyrene ND dibenz(a, h) anthracene ND benzo(ghi) perylene ND

#### SURROGATE RECOVERIES

RECOVERY	36 46 7 7 52 7 7 8 9 7 7 7
COMPOUND	2-fluorophenol d5-phenol d5-nitrobenzene 2-fluorobiphenyl 2,4,6-tribromophenol d14-terphenyl
SCAN	364 484 612 884 1112 1474

AND DEFINITIONS FOR THIS REPORT. NOTES

440 = not detected at specified detection limit. DEF LIMIT = detection limit.

N/A = not available.

BL ≃ detected in Reagent Blank; background subtraction not performed.

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J = estimated value less than detection limit.

Work Order # 56-08-034 NAME Pesticides by GC\MS Category LAK 1787 VERIFIED TEST CODE MS 608 UNITS V/N A/N NAV DET LIMIT Date & Time Collected 08/21/86 FILE # 5CU08034C01 ORGANICS ANALYSIS DATA SHEET PESTICIDES REPORT Results by Sample 2 밁 2 밁 밁 일일일 2 윋 N 2 N 일 밁 밀밀 밁 밁 RESULT FRACTION O1A Sacramento EXTRCTD 08/25/86 INJECTD 09/05/86 COMPOUND alpha-BHC beta-BHC aldrin heptachlor epoxide 4, 4'-DDE dieldrin endrin endosulfan II 4, 4'-DDD 4, 4'-DDT gamma chlordane alpha chlordane toxaphene endosulfan sulfate endrin aldehyde methoxychlor endrin ketone PCB-1016 PCB-1232 PCB-1242 gamma-BHC (lindane) delta-BHC heptachlor PCB-1221 endosulfan I RAS 53469-21-9 1141-16-5 319-84-6 58-89-9 319-86-8 9-86-656 72-55-9 72-20-8 33213-65-9 72-54-8 50-29-3 72-43-5 12674-11-2 11104-28-2 CAS # 319-85-7 76-44-B 309-00-2 024-57-3 60-57-1 57-74-9(9) 57-74-9(a) 8001-35-2 1031-07-8 7421-93-4 53494-70-5 Received: 08/23/86 SAL SAMPLE 1D 860257 5100 SCAN INSTRICT ANALYST Page 8

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Page 10 Received: 08/23/86

RAS 23/86

Sacramento REPORT Results by Sample

Work Order # 56-08-034

20000000

NAME Semivolatile Organics H2O

Category

RECEIVED: 06/23/60 SAMPLE ID 860258

FRACTION 02A TEST CODE CL 625
Date & Time Collected 08/21/86

ORGANICS ANALYSIS DATA SHEET SEMIVOLATILE COMPOUNDS LAK VERIFIED UNITS DET LIMIT 외 Q 밁 S 밁 S 月 열일 S 밀 뮏 2 윋 S 2 月 RESULT FILE # 50008034002 naphthalene bis(2-chloroisopropyl)ether benzoic acid 1, 2, 4-trichlorobenzene 4-chloroaniline hexachlorobutadiene 2-chlorophenol 4-methylphenol n-nitroso-di-n-propylamine hexachloroethane 2,4-dimethylphenol n-nitrosodimethylamine bis(2-chloroethul) ether 1, 3-dichlorobenzene benzyl alcohol 2-methylphenol 2-nitrophenol bis(2-chloroethoxy)methane aniline 1,2-dichlorobenzene 2,4-dichlorophenol 1, 4-dichlorobenzene nitrobenzen isophorone 4-chloro-3-methylphenol COMPOUND 2-methylnap' EXTRCTD 08/25/86 09/10/86 INJECTD 621-64-7 67-72-1 91-20-3 106-47-8 87-68-3 95-57-8 88-75-5 9-79-50 65-85-0 20-83-2 59-50-7 62-75-9 08-95-2 62-53-3 11-44-4 541-73-1 106-46-7 100-51-6 95-48-7 108-60-1 106-44-5 98-95-3 78-59-1 11-91-1 20-82-1 95-50-1 CAS # SAL 5100 SCAN INSTRMT ANALYST

NAME Semivolatile Organics H2O Work Order # 56-08-034 Continued From Above Category DET LIMIT 일일일일일 呈 2 윋 S 밁 Ž 呈 9 S 2 윋 2 윋 TEST CODE CL 625 RESULT Date & Time Collected 08/21/86 nento REPORT Results by Sample hexachlorocyclopentadiene 2-nitroaniline 2,6-dinitrotoluene 2,4-dinitrotoluene n-nitrosodiphenylamine 4-bromophenyl-phenylether hexachlorobenzene phenanthrene anthracene di-n-butylphthalate fluoranthene benzidine 2-chloronaphthalene dimethyl phthalate 4-chlorophenyl-phenylether 4-nitroaniline 4.6-dinitro-2-methylphenol 2, 4, 6-trichlorophenol 2, 4, 5-trichlorophenol 3-nitroaniline dibenzofuran diethylphthalate acenaphthylene acenaphthene fluorena 2,4-dinitrophenol 4-nitrophenol pentachlorophenol COMPOUND FRACTION 02A Sacramento RAS 87-86-5 85-01-8 86-73-7 .00-01-06 131-11-3 208-96-B 84-66-2 7005-72-3 9-06-98 101-55-3 84-74-2 206-44-0 92-87-5 77-47-4 88-06-2 95-95-4 91-58-7 88-74-4 2-60-66 83-32-9 51-28-5 100-05-7 132-64-9 606-20-2 121-14-2 534-52-1 118-74-1 120-12-7 CAS Received: 08/23/86 860258 318 SCAN SAMPLE 1D Page 11

999

pyrene

29-00-0

85-68-7 91-94-1 56-55-3

17-81-7

1657

**butylbenzylphthalate** 

3'-dichlorobenzidine benzo(a)anthracene bis(2-ethylhexyl)phthalate

Work Order # 56-08-034

REPORT

RAS Sacramento

Page 12

NAME Semivolatile Organics H20 Continued From Above Category 2.5 DET LIMIT FRACTION OZA TEST CODE CL 625 Date & Time Collected 08/21/86 일 밀밀 밁 RESULT Results by Sample chrysene di-n-octyl phthalate benzo(b)fluoranthene benzo(k)fluoranthene benzo(a)pyrene COMPOUND 218-01-9 117-84-0 205-99-2 207-08-9 50-32-8 Received: 08/23/86 SAMPLE 1D 860258 SCAN

SURROGATE RECOVERIES

9.7

999

indeno(1,2,3—cd)pyrene dibenz(a,h)anthracene benzo(ghi)perylene

193-39-5

53-70-3

RECOVERY	200 200 200 200 200 200 200 200 200 200
COMPOUND	2-fluorophenol d5-phenol d5-nitrobenzene 2-fluorobiphenyl 2,4,6-tribromophenol
	368 486 612 884 1112 1471

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit.

 $N\Omega = not$  detected at specified detection limit. WA = not analyzed.

MVA = not available.

 $\mathrm{BL} = \mathsf{detected}$  in Reagent Blank; background subtraction not performed. J = estimated value less than detection limit.

Work Order # S6-08-034 NAME Pesticides by GC/MS Category T A X 1787 VERIFIED TEST CODE MS 608 UNITS 8 AVA N\A ∢ Z DET LIMIT Date & Time Collected 08/21/86 FILE # 5000034002 ORGANICS ANALYSIS DATA SHEET PESTICIDES REPORT Results by Sample 밁 밁 2 2 N 2 윋 윋 9 밁 2 2 밁 Š 뮏 일일 윋 열 S RESULT FRACTION 02A RAS Sacramento EXTRCTD 08/25/86 INJECTD 09/10/86 COMPOUND heptachlor epoxide 4, 4'-DDE dieldrin endosulfan II 4, 4'-DDD 4, 4'-DDT gamma chlordane alpha chlordane toxaphene endosulfan sulfate endrin aldehyde endrin ketone PCB-1016 PCB-1232 PCB-1242 alpha-BHC beta-BHC delta-BHC heptachlor aldrin endrin methoxychlor PCB-1221 gamma-BHC (lindane) endosulfan l 1024-57-3 9-86-656 72-20-8 33213-65-9 72-54-8 2674-11-2 11104-28-2 11141-16-5 53469-21-9 CAS # 319-84-6 58-89-9 319-86-8 76-44-8 309-00-2 72-55-9 50-29-3 57-74-9(9) 8001-35-2 1031-07-8 7421-93-4 72-43-5 53494-70-5 319-85-7 60-57-1 57-74-9(a) Received: 08/23/86 SAL SAMPLE 1D 860258 5100 SCAN INSTRIIT ANALYST Page 13

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Work Order # 56-08-034 Continued From Above	NAME Pesticides by GC/MS Category			16 Category	
Sacramento REPORT Results by Sample	FRACTION OZA TEST CODE MS 608 Date & Time Collected 08/21/86	COMPOUND RESULT DET LIMIT PCB-1248 ND 360 PCB-1254 ND 34 PCB-1260 ND 500	JRT 1 detection limit. ection limit.	SAMPLE # 03 FRACTIONS: A Date & Time Collected 08/21/86	
Page 14 Received: 08/23/86	SAMPLE ID 860258	SCAN CAS # 12672-29-6 11097-69-1 11096-82-5	NOTES AND DEFINITIONS FOR THIS REPORT DET LIMIT = detection limit.  ND = not detected at specified d NA = not analyzed.  + = less than 5 times the detect NA = not available.	SAMPLE ID 860259	EX BNA 08/25/86

KADDAK

Page 15 Received: 08/23/86

RAS Sacramento Results

mento REPORT Results by Sample

Work Order # 56-08-034

Received: 08/23/85 SAMPLE ID 860259

NAME Semivolatile Organics H2O Category FRACTION O3A TEST CODE CL 625 Date & Time Collected 08/21/86

Date & IIMe Collected <u>UB/21/</u>
ORGANICS ANALYSIS DATA SHEET
SEMIVOLATILE COMPOUNDS

LAK

00101000	Verified -																													
	STINO	DET LIMIT	10	1.5	10	J	9.9	1.9	4.4	20	1.9	10	5.7	10	12	1.6			3.6	2.7	5	5.3	2.7	1.9	1.6	10	0. 40	3.0	10	
0004000010	3CQ08034CQ3	RESULT	QN	QN N	N					QN				QN					Q			Q	QN	QN	QN		Q	Q	QN	
1 1	09/25/86 09/10/86	COMPOUND	n-nitrosodimethylamine	phenol	aniline	bis(2-chloroethyl) ether	2-chlorophenol	1, 3-dichlorobenzene	1,4-dichlorobenzene	benzyl alcohol	1,2-dichlorobenzene	2-methylphenol	is(2-chloroisopropyl)ether	4-methylphenol	n-nitroso-di-n-propylamine	hexachloroethane	nitrobenzene	isophorone	2-nitrophenol	2,4-dimethylphenol	benzoic acid	bis(2-chloroethoxy)methane	2,4-dichlorophenol	1, 2, 4-trichlorobenzene	naphthalene	4-chloroaniline	hexachlorobutadiene	4-chloro-3-methylphenol	2-methylnap alene	` ' '
	EXTRCIDINGECTD	CAS #	62-72-9	108-95-2	62-53-3	111-44-4	95-57-8	541-73-1	106-46-7	100-51-6	95-50-1	95-48-7	108-60-1 b	106-44-5	621-64-7	67-72-1	98-95-3	78~59~1	88-72-5	105-67-9	65-85-0	111-91-1	120-83-2	120-82-1	91-20-3	106-47-8	87~68-3	59-50-7	91-57-6	
	ANALYST SAL INSTRI1 5100	SCAN			į													ļ												` '

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NAME Semivolatile Organics H2O Work Order # 56-08-034 Continued From Above Category DET LIMIT TEST CODE CL 625 밁 윋 일 RESULT 2 月 S 멸 일 열 月 윋 月 일 月 일 밀 양 일 읽 밁 묏 Date & Time Collected 08/21/86 REPORT Results by Sample hexachlorocyclopentadiene dibenzofuran 4-chlorophenyl-phenylether butylbenzylphthalate 2, 4, 6—trichlorophenol 2, 4, 5-trichlorophenol 2-chloronaphthalene dimethyl phthalate acenaphthylene 3-nitroaniline 4-dinitrophenol 4-nitrophenol 2,6-dinitrotoluene 2, 4-dinitrotoluene diethylphthalate 4-nitrosniline 4,6-dinitro-2-methylphenol n-nitrosodiphenylamine 4-bromophenyl-phenylether anthracene di-n-butylphthalate fluoranthene benzidine purene 3, 3'-dichlorobenzidine benzo(a)anthracene bis(2-ethylhexyl)phthalate 2-nitroaniline fluorene hexachlorobenzene pentachlorophenol phenanthrene acenaphthen: COMPOUND FRACTION 03A Sacramento ด้ RAS 8-96-802 2-60-66 9-06-98 131 - 11 - 383-32-9 51-28-5 .32-64-9 506-20-2 005-72-3 **86-73-7** 100-01-06 85-01-8 84-74-2 92-87-5 129-00-0 77-47-4 88-06-2 95-95-4 100-05-7 121-14-2 84-66-2 534-52-1 101 - 55 - 387-86-5 206-44-0 56-55-3 17-81-7 91-58-7 88-74-4 120-12-7 85-68-7 91-94-1 118-74-1 CAS SAMPLE 1D 860259 SCAN Received:

RAS Received: 08/23/86 Page 17

REPORT Results by Sample Sacramento

Work Order # 56-08-034 Continued From Above

SAMPLE ID 860259

NAME Semivolatile Organics H2O FRACTION 03A TEST CODE CL 625 Date & Time Collected 08/21/86

Category

RESULT DET LIMIT	2.5	. CI	4.8	2.5		3. 7	2.5	4.1
REBULT	QN	QN	QN	QN	QN	QN	QN	Q
COMPOUND	chrysene	di-n-octyl phthalate	benzo(b)fluoranthene	benzo(k)fluoranthene	benzo(a)pyrene	indeno(1,2,3-cd)pyrene	dibenz(a,h)anthracene	benzo(ahi)perulene
CAS #	218-01-9	117-84-0	202-66-5	207-08-9	50-32-8	193-39-5	53-70-3	191-24-2
SCAN								

## SURROGATE RECOVERIES

RECOVERY	000 000 000 000 000 000 000 000 000 00
COMPOUND	2-fluorophenol d5-phenol d5-nitrobenzene 2-fluorobiphenyl 2,4,6-tribromophenol d14-terphenyl
SCAN	372 488 614 884 1112 1472

AND DEFINITIONS FOR THIS REPORT. NOTES

NO = not detected at specified detection limit. DET LIMIT = detection limit.

11/A = not available. BL = detected in Reagent Blank; background subtraction not performed. J ≖ estimated value less than detection limit.

ANGERIAL DESCRIPTION NOTIONAL

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TOTAL SERVICES STOCKERS SAFERING

333333 JUNE 1000 XVVX

Work Order # 56-08-034 NAME Pesticides by GC/MS Category LAK **ua/1 VERIFIED** TEST CODE MS 608 FILE # <u>5CU08034C03</u>
UNITS **4/2 ∀**/**Z** DET LIMIT Date & Time Collected 08/21/86 ORGANICS ANALYSIS DATA SHEET nento REPORT Results by Sample 2 일일 일 밁 밁 N 밁 밁 皇 밁 S 윋 呈呈 윋 皇 밁 밁 오 PESTICIDES RESULT FRACTION 03A Sacramento EXTRCTD 08/25/86 09/10/86 COMPOUND 4, 4'-DDE dieldrin endrin 4, 4'-DDD gamma chlordane endosulfan sulfate PCB-1016 PCB-1232 PCB-1242 alpha-BHC beta-BHC delta-BHC heptachlor aldrin heptachlor epoxide endosulfan II 4, 4'-DDT alpha chlordane toxaphene endrin aldehyde methoxychlor endrin ketone PCB-1221 gamma-BHC (lindane) endosulfan I INJECTD RAS 1141-16-5 53469-21-9 319-84-6 319-86-8 72-20-8 33213-65-9 72-54-8 53494-70-5 2674-11-2 1104-28-2 **28-89-9** 76-44-8 309-00-2 1024-57-3 8-86-656 72-55-9 50-29-3 1031-07-8 7421-93-4 72-43-5 319-85-7 60-57-1 57-74-9(g) 57-74-9(a) 8001-35-2 CAS 08/53/86 SAL **SAMPLE 1D 860259** 5100 SCAN Received: INSTRMI ANALYST Page 18

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Page 19	RAS Sacramento	REPORT	Work Order # S6-08-034
Received: 08/23/86	Results by Sample	nple	Continued From Above
SAMPLE ID 860259	FRACTION O3A TEST CODE MS 60	TEST CODE MS 608	NAME Pesticides by GC\MS
	Date & Time Collected 08/21/86	ected 08/21/86	Category
SCAN CAS # 12672-29-6 11097-69-1 11096-82-5	COMPOUND RESULT PCB-1248 PCB-1254 PCB-1260	ND 340 ND 34 ND 500	
NOTES AND DEFINITIONS FOR THIS REPORT  DET LIMIT = detection limit.  NU = not detected at specified detection  NA = not analyzed.  * = less than 5 times the detection limit.  N\A = not available.	REPORT t. fied detection limit. detection limit.		

Category	
SAMPLE # 04 FRACTIONS: A Date & Time Collected 08/21/86	
SAMPLE 1D 860260	EX_BNA_08/25/86 date_completed

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Work Order # 56-08-034

REPORT

Sacramento

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LAK NAME Semivolatile Organics H2O VERIFIED Category STINO DET LIMIT TEST CODE CL 625 2 2 윘 2 月 9 일 2 밁 밁 9 일 月 2 윘 윋 2 2 뎴 RESULT FILE # 50008034004 Date & Time Collected 08/21/86 DRGANICS ANALYSIS DATA SHEET SEMIVOLATILE COMPOUNDS Results by Sample n-nitroso-di-n-propylamine 4-methylphenol benzoic acid naphthalene 4-chloroaniline n-nitrosodimethylamine aniline bis(2-chloroethul) ether 2-chlorophenol 1, 3-dichlorobenzene , 4-dichlorobenzene benzyl alcohol 1,2-dichlorobenzene 2-methylphenol bis(2-chloroisopropyl)ether hexachloroethane nitrobenzene isophorone 2-nitrophenol 2,4-dimethylphenol bis(2-chloroethoxy)methane 2,4-dichlorophenol 2,4-trichlorobenzene hexachlorobutadiene 4-chloro-3-methylphenol phenol COMPOUND 2-methylnap FRACTION 04A 08/25/86 INJECTD 09/10/86 EXTRCTD 100-51-6 95-50-1 95-57-8 88-75-5 105-67-9 65-85-0 20-83-2 87-68-3 108-95-2 62-53-3 111-44-4 95-48-7 106-44-5 521-64-7 98-95-3 91-20-3 06-47-8 59-50-7 106-46-7 111 - 91 - 120-82-1 67-72-1 78-59-1 541-73-1 108-60-1 CAS # 5100 SAMPLE 1D 860260 SCAN Received: ANALYST INSTRMI Page 20

NAME Semivolatile Organics H<u>2O</u> Work Order # 56-08-034 Continued From Above Category 5.4 DET LIMIT S 일일 일밀밀일 FRACTION 04A TEST CODE CL 625 Date & Time Collected 08/21/86 뫼 일일 り 밁 2 밁 밀 일일 밁 일일 밁 刉 일 일 RESULT mento REPORI Results by Sample hexachlorocyclopentadiene 2-chloronaphthalene acenaphthylene 2, 6-dinitrotoluene 2, 4-dinitrotoluene di-n-butylphthalate fluoranthene butylbenzylphthalate 3'-dichlorobenzidine 2, 4, 5-trichlorophenol 2-nitroaniline dimethyl phthalate 3-nitroaniline acenaphthene dibenzofuran diethylphthalate 4-chlorophenyl-phenylether 4-nitroaniline n-nitrosodiphenylamine hexachlorobenzene anthracene pyrene bis(2-ethylhexyl)phthalate 2, 4, 6-trichlorophenol 2,4-dinitrophenol 4-nitrophenol fluorene 4,6-dinitro-2-methylphenol 4-bromophenyl-phenylether pentachlorophenol phenanthrene benzidine benzo(a)anthracene COMPOUND RAS Sacramento ര് 88-06-2 88-74-4 132-64-9 86-73-7 100-01-06 84-74-2 206-44-0 92-87-5 129-00-0 95-95-4 91-58-7 131-11-3 208-96-8 99-09-2 B3-32-9 51-28-5 100-05-7 606-20-2 121-14-2 84-66-2 7005-72-3 534-52-1 86-30-6 87-86-5 85-01-8 120-12-7 56-55-3 117-81-7 77-47-4 101-55-3 118-74-1 85-68-7 91-94-1 CAS Received: 08/23/86 **SAMPLE ID 860260** SCAN Page 21

Page 22 Received: 08/23/86

RAS Sacramento REPORT Results by Sample

Work Order # 56-08-034 Continued From Above

SAMPLE ID 860260

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	Date & Time Coll

NAME Semivolatile Organics H2O Category

DET LIMIT 2:5
RESULT ND
COMPOUND chrysene di-n-octyl phthalate benzo(b)fluoranthene benzo(k)fluoranthene benzo(k)fluoranthene indeno(1,2,3-cd)pyrene dibenz(a,h)anthracene benzo(ghi)perylene
CAS # 218-01-9 117-84-0 205-99-2 207-08-9 50-32-8 193-39-5 53-70-3
SCAN

## SURROGATE RECOVERIES

RECOVERY	414 449 % % 422 % 558 % 555 %
COMPOUND	2-fluorophenol d5-phenol d5-nitrobenzene 2-fluorobiphenyl 2,4,6-tribromophenol
SCAN	353 478 608 882 1111 1470

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = detection limit. NO = not detected at specified detection limit.

NA = not analyzed.

N/A = not available.

BL= detected in Reagent Blank; background subtraction not performed J = estimated value less than detection limit. Work Order # 56-08-034 NAME Pesticides by GC/MS Category LAK **u**q/1 VERIFIED TEST CODE MS 608 UNITS 888 NA N/A DET LIMIT Date & Time Collected 08/21/86 FILE # 5CU08034C04 ORGANICS ANALYSIS DATA SHEET nento REPORT Results by Sample 밀 일일 밁 2 윋 2 2 9 밁 일입일일일 원 윋 P 月 2 밁 밁 PESTICIDES RESULT FRACTION 04A EXTRCTD 08/25/86 INJECTD 09/10/86 Sacramento PCB-1232 PCB-1242 PCB-1016 4, 4'-DDD COMPOUND dieldrin 4, 4'-DDT gamma chlordane endosulfan sulfate endrin aldehude methoxychlor alpha-BHC beta-BHC gamma-BHC (lindane) delta-BHC heptachlor aldrin heptachlor epoxide 4, 4'-DDE endrin endosulfan II alpha chlordane toxaphene endrin ketone PCB-1221 endosulfan I RAS 58-89-9 1104-28-2 1141-16-5 33469-21-9 319-84-6 319-86-8 72-55-9 72-20-8 33213-65-9 72-54-8 12674-11-2 319-85-7 76-44-8 309-00-2 024-57-3 8-86-656 60-57-1 50-29-3 57-74-9(g) 57-74-9(a) 8001-35-2 1031-07-8 72-43-5 53494-70-5 7421-93-4 CAS 5100 Received: 08/23/86 SAMPLE 1D 860260 SCAN INSTRUT ANALYST Page 23

Work Order # 56-08-034 Continued From Above NAME Pesticides by GC/MS Category Category FRACTION 04A TEST CODE MS 608 SAMPLE # <u>05</u> FRACTIONS: A Date & Time Collected <u>08/21/86</u> 500 DET LIMIT Date & Time Collected 08/21/86 ento REPORT Results by Sample 2 22 RESULT ND = not detected at specified detection limit. = less than 5 times the detection limit. RAS Sacramento PCB-1248 COMPOUND PCB-1254 PCB-1260 NOTES AND DEFINITIONS FOR THIS REPORT DET LIMIT = detection limit. N/A = not available 12672-29-6 11096-82-5 11097-69-1 Received: 08/23/86 SAMPLE 10 860261 SAMPLE 1D 860260 SCAN Page 24

EX\_BNA\_08/25/86

KADIAN Corporation

Page 25 Received: 08/23/86

nento Results by Sample RAS Sacramento

Work Order # 56-08-034

SAMPLE 1D 860261

FRACTION 05A TEST CODE CL 625 NAME Semivolatile Organics H2O Date & Time Collected 08/21/86

ORGANICS ANALYSIS DATA SHEET SEMIVOLATILE COMPOUNDS

LAK

	VERIFIED																											:,
	UNITS	DET LIMIT	10	101	5.7		- 4	4 4	000	10	5.7	10	12	1.6	1.9	-1	3.6	2.7	IOI.	-,[	2.7	1.9	1.6	10	0. 90	3.0	10	
SON	<u>5CU08034C05</u>	RESULT	Q		Q N	QN	Q	Q S	S S	QX	ΩN	ΩN	Q	S	S	2	2	Q N	Q Z	Q N	Q	Q	QN	QN	QN	Q	QN	
SEMI VOLA I I LE COMPONDE	FILE #	COMPOUND	n-nitrosodimethylamine	preno.		•-	-dichlorobenz	chlorob <b>e</b> n	Denzyl alcohol. 1. D-4:rhlorotene	N-methalohe	oisopropyl)e	4-methylphenol	-di-n-ip-	hexachloroethane	nitrobenzene	iso	2-ni	đ	benzoic acid	loroethoxy)methane	2,4-dichlorophenol	4-trichlorobenzene	naphthalene	4-chloroaniline	hexachlorobutadiene	ylph	2-methylnap alene	)
	rd <u>08/25/86</u> rd <u>09/10/8</u> 6		n-n		bis(2-		•	-	-	•	bis (2-chlor		n-nitroso							bis(2-chloroeth		1, 2,			£	4-ch1	ณ	
	EXTRCTD INJECTD	CAS #	62-75-9	108-73-3 62-53-3	-44-	95-57-8	541-73-1	1	100-51-6	95-48-7	108-60-1	106-44-5	621-64-7		Ï	ł	l		ī	111-91-1	120-83-2	1	1	106-47-8	87-68-3	-20-	91-57-6	
	ANALYST SAL INSTRMT 5100	SCAN	ļ														ļ		ļ		İ							)

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Page 26 Received

REPORT Sacramento RAS

Work Order # 56-08-034

Results by Sample Continued From Above	ACTION 05A TEST CODE CL 625 NAME Semivolatile Organics H20 te & Time Collected 08/21/86	COMPOUND RESULT DET LIMIT	iene	hlorophenol ND 2.7	lorophenol ND 10	aphthalene ND 1	troaniline ND 5	phthalate ND 1.	phthylene	oanline		phenol ND 4	1 trophenol ND A	QN	trotoluene	rotoluene ND 5.	phinalate ND	henylether ND 4.	fluorene ND	troaniline	ulphenol ND	phenylamine ND 1.9	phenylether ND 1.9	obenzene ND	oropheno1 ND	enanthrene ND 5.4	anthracene ND 1.9	ylphthalate ND 2.5	ND ND	ine ND 4	pyrene ND 1.9	Iphthalate ND 2.5	obenzidine ND 1	anthracene ND 7.8	obthalate ND 2.5
Results	FRACTION 05 Date & Time	MOD	lorocycl	6-tric	4, 5-	ch1		dimethyl	9000	מיויין מיויין		nib-4.2		•	٦ : ا	4.	01 <b>e</b> th	4-chlorophenyl-p		4-ni	4,6-dinitro-2-meth	itrosodi	4-bromophenyl-p	exac	pentachl	d q		di-n-buty	1+			butylbenzy	-dichlo	benzo	bis(2-ethulhexul
		CAS #	77-47-4	88-06-2	95-95-4	91-58-7	88-74-4	131-11-3	8-96-80Z	7-60-66	4-35-50	51-28-15	/-ZO-001			121-14-2	ł	7005-72-3	86-73-7	100-01-06	534-52-1	86-30-6	101-55-3	118-74-1	87-86-5	85-01-8	120-12-7	84-74-2	206-44-0	92-87-5	129-00-0	85-68-7	91-94-1	1	117-81-7
Received: 08/23/86	SAMPLE 1D 860261	SCAN									1				4		1	8	0									İ							

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Page 27 Received: 08/23/86

RAS Sacramento REPORT Results by Sample

Work Order # 56-08-034 Continued From Above

SAMPLE 1D 860261

FRACTION 05A TEST CODE CL 625 Date & Time Collected 08/21/86

NAME Semivolatile Organics H2O Category

DET LIMIT	2.5	2.5	4.8	2.5	<u>ල</u>	3.7	2, 5	4. 1
RESULT	QN	Q	QN	QN	QN	QN	Q	QN Q
COMPOUND	chrysene	di-n-octyl phthalate	benzo(b)fluoranthene	benzo(k)fluoranthene	benzo(a)pyrene	indeno(1, 2, 3-cd)pyrene	dibenz(a,h)anthracene	benzo(ghi)perylene
CAS #	218-01-9	117-84-0	205-99-2	207-08-9	50-32-8	193-39-5	53-70-3	191-24-2
SCAN								

## SURROGATE RECOVERIES

RECOVERY	48 % 61 % 67 % 68 %
COMPOUND	2-fluorophenol d5-phenol d5-nitrobenzene 2-fluorobiphenyl 2,4,6-tribromophenol
SCAN	352 477 608 883 1110 1470

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = detection limit. ND = not detected at specified detection limit.

14 = not analyzed

NA = not available.

BL = detected in Reagent Blank; background subtraction not performed

STISSING BISLINGS FRANKSS PUNISHED DESCRIPT BESKING KIRTUR KISLINGS

2222223 12632555

J = estimated value less than detection limit.

Work Order # 56-08-034 NAME Pesticides by GC/MS Category LAK 09/1 VERIFIED TEST CODE MS 608 FILE # 5CU08034C05 A/N N/A 8.0 NVA DET LIMIT Date & Time Collected 08/21/86 ORGANICS ANALYSIS DATA SHEET nento REPORT Results by Sample 2 일일일 일일일일 밁 밀 일일 밀밀 일일일 밀밀 밁 밁 외 PESTICIDES RESULT FRACTION 05A EXTRCTD 08/25/86 Sacramento INJECTD 09/10/86 4, 4'-DDD COMPOUND aldrin 4, 4'-DDE dieldrin endrin 4, 4'-DDT gamma chlordane alpha chlordane toxaphene endosulfan sulfate methoxychlor PCB-1016 PCB-1232 PCB-1242 heptachlor heptachlor epoxide endosulfan II endrin aldehyde endrin ketone PCB-1221 alpha-BHC beta-BHC (lindane) delta-BHC endosulfan I RAS gamma-BHC 72-54-8 1104-28-2 11141-16-5 53469-21-9 319-84-6 319-86-8 1024-57-3 9-86-656 33213-65-9 50-29-3 1031-07-8 2674-11-2 28-89-9 76-44-8 309-00-2 72-55-9 72-20-8 8001-35-2 72-43-5 319-85-7 57-74-9(g) 7421-93-4 53494-70-5 60-57-1 57-74-9(a) CAS Received: 08/23/86 SAL SAMPLE 1D 860261 5100 SCAN ANALYST INSTRMI Page 28

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KWDIWN	**		
Page 29   Received: 08/23/86	RAS Sacramento Results	nento Results by Sample	Work Order # S6-08-034 Continued From Above
SAMPLE ID 860261	FRACTION O	FRACTION 05A TEST CODE MS 608 Date & Time Collected 08/21/86	608 NAME Pesticides by GC\MS 86 Category
SCAN CAS # 12672-29-6 11096-82-5	COMPOUND PCB-1248 PCB-1254 PCB-1260	RESULT DET LIMIT 360 ND 340 ND 360 ND 360 ND 360 ND ND ND ND ND ND ND ND ND ND ND ND ND	MIT 360 34 500
NOTES AND DEFINITIONS FOR THIS REPORT DET LIMIT = detection limit. NO = not detected at specified d NA = not analyzed.  + = less than 5 times the detect NA = not available.	etection ion limit	lisit	

	Category	
06 FRACTION	Date & lime Collected not specified	
SAMPLE ID Method Spike BNA		EX_BNA_08/25/86

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STATE STATES STATES

Received: 08/23/86 Page 30

Sacramento RAS

REPORT Results by Sample

Work Order # 56-08-034

SAMPLE ID Method Spike BNA

TEST CODE CL 625 FRACTION 06A

NAME Semivolatile Organics H2O

Category

specified DRGANICS ANALYSIS DATA SHEET Date & Time Collected not SEMIVOLATILE COMPOUNDS LAK

VERIFIED UNITS DET LIMIT 2828 S 뙤 S S 59 S 9 8 57 67 51 RESULT 61 FILE # 5CMOBO34CO6 n-nitroso-di-n-propylamine n-nitrosodimethylamine bis(2-chloroethyl) ether 1, 3-dichlorobenzene I, 4-dichlorobenzene 1, 2-dichlorobenzene bis(2-chloroisopropyl)ether 4-methylphenol hexachloroethane isophorone 2,4-dimethylphenol benzoic acid bis(2-chloroethoxy)methane aniline 2-methylphenol nitrobenzene 2-nitrophenol phenol 2-chlorophenol benzul alcohol COMPOUND EXTRCTD <u>08/25/86</u> INJECTD 09/10/86 65-85-0 62-53-3 88-75-5 6-29-501 108-95-2 11-44-4 95-57-B 106-46-7 100-51-6 95-48-7 106-44-5 621-64-7 98-95-3 111 - 91 - 162-75-9 541-73-1 95-50-1 108-60-1 67-72-1 78-59-1 CAS SAL 5100 SCAN 500 521 529 555 572 591 600 612 646 660 681 695 709 206 480 493 INSTRMI ANALYST

THE SECRECAL SECRETARY SECRETARY SESSIONS SECRETARY SECRETARY SECRETARY SECRETARY SECRETARY SECRETARY SECRETARY

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SS 2

1, 2, 4-trichlorobenzene

2,4-dichlorophenol

naphthalene 4-chloroaniline hexachlorobutadiene

91-20-3 .06-47-B 87-68-3

70

747 802

20-83-2 120-82-1 4-chloro-3-methylphenol

59-50-7

2-methylnap

# 

Page 31 Received: 08/23/86

RAS Sacramento REPORT Results by Sample

Work Order # 56-08-034 Continued From Above

NAME Semivolatile Organics H2O ed Category	DET LIMIT	6.0	2.7	10	1.9	20	-4	G. 5	50	1.9	42	2.4	~┥	1.9	2.7		.1	1.9	50	24	1.9	1.9	1.9		5, 4		U.	Ci	4	1.9	io.			C)
TEST CODE CL 625   ected not specifie	RESULT	CI	48	S	51	SS	41	51	S	52	21	31	S	56	56	20	46	20	S	57	71	S	64	59	53	73	53	20	S	51	52	S	52	S
CODE	_	•			•	ne		•	•	9	-		an	9	•		7				9	<u></u>	9	=	9	9	9		9	9	9	le l	]	•
TEST ollecte	QND	ntadien	oropheno	rophenol	phthalen	oanilin	hthalat	hthylene	oaniline	aphthene	trophenol	tropheno	enzofura	otoluen	otoluene	phthalat	enylether	fluoren	oaniline	1 p	enylamin	enylether	robenzene	orophenol	enanthrene	anthracen	phthalat	oranthen	enzidin	pyren	hthal		thrace	hthalat
FRACTION OGA TEST Date & Time Collected	COMPOUND	hlorocyclope	, 6-trichl	, 4, 5-trichlo	-chlorona	2-nitr	dimethyl pl	cenap	3-nitro	•	2, 4-diniti	4-nit	dib	2,6-dinitr	۴	hy1	4-chlorophenyl-phe		4-nitr	4,6-dinitro-2-methy	n-nitrosodiphe	4-bromophenyl-phe	hexachlor	pentachlo	phen	m	di-n-butylp	$\neg$	۵		butylbenzylp	'-dichlorob	benzo(a)an	bis(2-ethylhexyl)p
Spike BNA	CAS #	77-47-4	2-90-88	95-95-4	91-58-7	88-74-4	131-11-3	208-96-8	8-60-66	83-32-9	51-28-5	100-02-7	132-64-9	606-20-2	121-14-2	1	7005-72-3	86-73-7	100-01-06	534-52-1	9-06-98	101-55-3	118-74-1	87-86-5	85-01-8	120-12-7	84-74-2	206-44-0	92-87-5	129-00-0	82-68-7	91-94-1	56-55-3	117-81-7
SAMPLE ID Method Spike BNA	SCAN	859	871		688		952	964		643	665	1009		961	1022	1063	1072	1072		1085	1090		1171	1199	1222	1229	1318	1410		1446	1555		1643	
SAMPLE														4		49	34	1																

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REPORT RAS Sacramento

Work Order # 56-08-034 Continued From Above

SAMPLE ID Method Spike BNA

Results by Sample

FRACTION OGA TEST CODE CL 625 NAME Semivolatile Organics H2O Date & Time Collected not specified Category

DET LIMIT 2.5	C) 4	7	25	3. 7	5	4. 1
RESULT 51	525	57	49	64	89	69
COMPOUND	di-n-octyl phthalate	benzo(k) fluoranthene	benzo(a) purene	indeno(1,2,3-cd)pyrene_	dibenz(a,h)anthracene _	benzo(ghi)perylene _
CAS # 218-01-9	117-84-0	207-08-9	50-32-8	193-39-5	53-70-3	191-24-2
SCAN 1651	1763 1837	1842	1905	2213	2219	2300

## SURROGATE RECOVERIES

RECOVERY	50 60 7 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
COMPOUND	2-fluorophenol d5-phenol d5-nitrobenzene 2-fluorobiphenyl 2,4,6-tribromophenol
SCAN	356 479 609 884 1111 1500

ANU DEFINITIONS FOR THIS REPORT. NOTES

DET LIMIT = detection limit.

NO = not detected at specified detection limit.

N/A = not available. IA = not analyzed.

BL = detected in Reagent Blank; background subtraction not performed. J = estimated value less than detection limit.

Received: 08/23/86 Page 33

Sacramento RAS

REPORT

Work Order # 56-08-034

SAMPLE ID Method Spike BNA

Results by Sample

NAME Pesticides by GC/MS FRACTION OGA TEST CODE MS 608 N Date & Time Collected not specified

Category

ORGANICS ANALYSIS DATA SHEET PESTICIDES

LAX VERIFIED UNITS 0 2 150 120 DET LIMIT NA N/A NA 120 FILE # 5CM08034106 84 S A 533 42 욁 ¥ ¥ ¥ 영 A S 54 ¥ ¥¥ RESULT EXTRCTD 08/25/86 INJECTD 09/10/86 COMPOUND dieldrin 4, 4'-DDD gamma chlordane PCB-1016 alpha-BHC delta-BHC heptachlor aldrin heptachlor epoxide 4,4'-DDE endrin endosulfan II 4, 4'-DDT alpha chlordane toxaphene endosulfan sulfate endrin aldehyde methoxychlor PCB-1232 beta-BHC gamma-BHC (lindane) endrin ketone PCB-1221 PCB-1242 endosulfan ] 319-84-6 319-85-7 CAS # 58-89-9 319-86-8 76-44-B 1024-57-3 9-86-656 72-55-9 72-20-8 33213-65-9 72-54-8 50-29-3 11104-28-2 1141-16-5 309-00-2 60-57-1 8001-35-2 1031-07-8 72-43-5 53494-70-5 2674-11-2 53469-21-9 57-74-9(g) 7421-93-4 57-74-9(a) SAL 5100 SCAN 1449 146B 1520 568 573 1233 1304 1511 1521 521 401 1511 ANALYST INSTRMT

Work Order # 56-08-034 Continued From Above	608 NAME Pesticides by GC/MS	34 500	
RAS Sacramento Results by Sample	FRACTION OGA TEST CODE MS 608 N Date & Time Collected not specified	COMPOUND RESULT DET LIMIT PCB-1248 NA 340 PCB-1254 NA 34 PCB-1260 NA 500	IS REPORT
Page 34 Received: 08/23/86	SAMPLE ID Method Spike BNA	SCAN CAS # 12672-29-6 11097-69-1 11096-82-5	NOTES AND DEFINITIONS FOR THIS REPORT

	กายอยู่
SAMPLE # 06 FRACTIONS: B	מסיב מ וזווב רחזזבריבה ווחר אחברזנזבה
SAMPLE ID Reagent Blank BNA	EX_BNA_08/25/86

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Page 35 Received: 08/23/86

RAS Sacramento REPORT Results by Sample

Work Order # 56-08-034

SAMPLE ID Reagent Blank BNA

FRACTION 06B TEST CODE CL 625 NAME Semivolatile Organics H2O Date & Time Collected not specified Category

ORGANICS ANALYSIS DATA SHEET SEMIVOLATILE COMPOUNDS

LAK

VERIFIED L		
UNITS	DET LIMIT	10 10 10 10 10 10 10 10 10 10 10 10 10 1
<u> 5CB08034C06</u>	RESULT	9999999999999999999999999
<u>25/86</u> FILE #	COMPOUND	n-nitrosodimethylamine phenol aniline is(2-chloroethyl) ether 2-chlorobenzene 1,4-dichlorobenzene 1,2-dichlorobenzene 2-methylphenol troso-di-n-propylamine hexachloroethane nitrobenzene itroso-di-n-propylamine bexachloroethane 1,2-dimethylphenol 2,4-dimethylphenol benzoic acid c2-chloroethoxy)methane 2,4-dimethylphenol hexachlorophenol 1,2,4-trichlorophenol 1,2,4-trichlorophenol 2,4-dichlorophenol 2,4-dichlorophenol 2,4-dichlorophenol 2,4-dichlorophenol 2,4-dichlorophenol 2,4-dichlorophenol 2,4-dichlorobutadiene hexachloro-3-methylphenol 2-methylnap
EXTRCTD <u>08/</u> INJECTD <u>09/</u>	CAS #	62-75-9 108-95-2 62-53-3 111-44-4 95-57-8 541-73-1 106-46-7 100-51-6 95-50-1 95-48-7 108-60-1 106-44-5 621-64-7 108-60-1 106-44-5 621-64-7 108-60-1 106-47-8 120-83-2 120-83-2 120-83-2 120-83-2 120-83-2 120-83-3 59-50-7 91-50-3
ANALYST SAL INSTRM 5100	SCAN	

Page 36 Received:	08/23/86	<b></b>	RAS Sacramento Results by Sample	REPORT Sample		Work Order # S6-08-034 Continued From Above
SAMPLE ID	Reagent Blank	BNA	FRACTION 06B Date & Time Co	Collected not	CL 625 N specified	NAME Semivolatile Organics H2O
	SCAN	CAS #	COMPOUND	Q	RESULT	DET LIMIT
		77-47-4	hexachlorocyclopen'	entadiene	Ŋ	6.0
		88-04-2	4, 6-trichl	ophenol	Q	2.7
		95-95-4	4	orophenol	2	10
		91-58-7	2-chloronaphtha	len		7.7
		88-74-4	Z-LITTOBUTA	aniline +hala+e	2 2	000
		76-	ing thus and	the	2	i c
		•	3-nitroani	lin	Ω	50
		83~32-9	acenal	acenaphthene	QN	1.9
		51-28-5	2,4-dinitr	dinitrophenol	QN	42
4		00-02-7	4-nitr	itrophenol	Q Z	2, 4
4			dib	enzofuran	2	₩.
4	9	2-02-909	-dini	trotoluene	QN	1.9
19	-	21-14-2	4	Cen	Q	
9		84-66-2	diet	thalate	Q	0
}	2	7005-72-3	4-chlorophenyl-phen	-phenylether	Q	C4-
	1	86-73-7	4	Ten.	Q	1.9
	10	0-01-06	4 (	l in		000
		34-52-1		Iphenol		4.0
		86-30-6	A-tacentersolution	prenylamine		0
		118-74-1	The ward	benzene	9	
		87-86-5	ent	achlorophenol	QN	3.6
		85-01-8		enanthrene	QN	5. 4
		20-12-7	ant	anthracene	QN	1.9
		84-74-2	di-n-butylph	lphthalate	QN	ស
	מ	206-44-0	fluor	voranthene	QN	Ct Ct
		92-81-5	be	enzidine	Q	44
	-	0-00-621		ųт	Q	
		89-	٥	thalate	S	2.5
		1-94-	'-dichlor	enzidine	QN	17
		1	benzo(a)	a C 6	QN	7.8
		7-81-	bis(2-ethylhexyl)phth	thalate	Q	20.01

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Received: 08/23/86 Page 37

nento REPORT Results by Sample Sacramento RAS

Work Order # 56-08-034 Continued From Above

SAMPLE ID Reagent Blank BNA

FRACTION 06B TEST CODE CL 625 NAME Semivolatile Organics H2O Date & Time Collected not specified

Category

DET LIMIT	n n	4.	5	(J	3.7	in Ci	4.1
RESULT	Q	Q	Q	Q	Q	Q	Q
COMPOUND	cnrysene _ di-n-octul phthalate	benzo(b)fluoranthene	benzo(k)fluoranthene	benzo(a)pyrene _	indeno(1,2,3-cd)pyrene	dibenz(a,h)anthracene _	benzo(ghi)perylene _
CAS #	117-84-0	202-88-2	207-08-9	50-32-8	193-39-5	53-70-3	191-24-2
SCAN							

## SURROGATE RECOVERIES

RECOVERY	24 4 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
COMPOUND	2-fluorophenol d5-phenol d5-nitrobenzene 2-fluorobiphenyl 2,4,6-tribromophenol
SCAN	487 613 884 1112 1471

AND DEFINITIONS FOR THIS REPORT. NOTES

DET LIMIT = detection limit.

NO = not detected at specified detection limit.

N/A = not available.

BL = detected in Reagent Blank; background subtraction not performed J = estimated value less than detection limit.

Received: 08/23/86 Page 38

Sacramento RAS

nento REPORT Results by Sample

Work Order # 56-08-034

SAMPLE ID Reagent Blank BNA

NAME Pesticides by GC/MS Date & Time Collected not specified TEST CODE MS 608 FRACTION 06B

Category

ORGANICS ANALYSIS DATA SHEET PESTICIDES

LAK

VER IF IED UNITS 0 **∀**/Z N/A NVA 150 30 120 DET LIMIT FILE # 5CB0B034C06 2 일 S 윉 밁 밁 S 일 2 Q 일일 S 2 밁 일 일일 밁 RESULT 08/25/86 09/05/86 PCB-1016 heptachlor heptachlor epoxide dieldrin 4, 4'-DDD gamma chlordane endosulfan sulfate PCB-1232 COMPOUND alpha-BHC 4, 4'-DDE endrin endosulfan II 4, 4'-DDT alpha chlordane endrin aldehyde methoxychlor endrin ketone PCB-1242 beta-BHC gamma-BHC (lindane) delta-BHC aldrin endosulfan I toxaphene PCB-1221 EXTRCTD INJECTD 1141-16-5 3469-21-9 319-94-6 319 - 86 - 876-44-B 309-00-2 1024-57-3 959-98-8 72-55-9 72-20-8 33213-65-9 72-54-8 50-29-3 1031-07-8 53494-70-5 2674-11-2 1104-28-2 58-89-9 60-57-1 57-74-9(9) 57-74-9(a) 8001-35-2 72-43-5 CAS # 319-85-7 7421-93-4 5100 SCAN INSTRMT ANALYST

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8 Page 39 8 Received: 08/23/86	RAS	Sacramento Results by Sample	REPORT Jamp 1 e	Work Order # 56-08-034 Continued From Above	-034 /e
SAMPLE ID Reagent Blank BNA		FRACTION OGB TEST CODE	TEST CODE MS 608	TEST CODE MS 608 NAME Pesticides by GC/MS	\$

Work Order # 56-08-034 Continued From Above FRACTION 06B TEST CODE MS 608 NAME Pesticides by GC\MS Date & Time Collected not specified Category REPORT Sample

DET LIMIT	360	34	500
RESULT	Q	QN	QN
COMPOUND	PCB-1248	PCB-1254	PCB-1260
CAS #	12672-29-6	11097-69-1	11096-82-5
SCAN			

 $\mathrm{RO} = \mathrm{not}$  detected at specified detection limit.  $\mathrm{RA} = \mathrm{not}$  analyzed. NOTES AND DEFINITIONS FOR THIS REPORT DET LIMIT = detection limit.

\* = less than 5 times the detection limit.

N/A = not available.

Page 1 Received: 08/20/86	RAS - Aus	Austin 08/27/86 15:53:33	Work Order # 86-08-078
REPORT Radian TO B1 4 Austin	PR	PREPARED Radian Analytical Services  BY 8501 Mo-pac 31. PO Box 9948	- Genry J. M. Lacelle.
ATTEN Larry French		ATTEN PHONE 512-454-4797	
CLIENT PLANT4 COMPANY Plant 4, USAF FACILITY General Dynamics	SAMPLES 2		
	FO	tes and C	
TAKEN WU TRANS FEG Ex	* + O	* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.	s the detection limit. ranges between 50 and 100%.
TYPE P () # 212-027-27-40 INVOICE UNDER SEPARATE COVER	© G C C C C C C C C C C C C C C C C C C	© Indicates that spixe recovery for this analysis specific matrix was not within acceptable limits i an interferent present.	this analysis on the table limits indicating
			1

SAMPLE IDENTIFICATION

HC IR

Hydrocarbons
Oil and grease, infrared

4 503

Residence Proper

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$\exists$	4
3	0
3	0
M	0

Page 2 Received: 08/20/86 Semple 1d 01 850229 02	RAS - Au Test: HC IR 1	Austin REPORT Results By Test Test: ONG IR 2* 2* 2*	Work Order # 86-08-078
SAMPLE 1 01   02   02	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	7 = 5 t : DNG 1R	
e- c		2* 2*	
		*2	
4 504			
		)	

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Page 2 Received: 08/22/86

Results by Sample Austin RAS

REPORT

Work Order # 86-08-092

SAMPLE 1D 860246

FRACTION 01A TEST CODE EPA601 Date & Time Collected 08/20/86

NAME EPA method 601 Category

VERIFIED CL	DET LIMIT	0.080	5.	0.18	0.52	0.25	NIA	0.13	0.070	0.10	0 000	0.030	0.030	0.12	0 10
FILE #	RESULT	ÛN	ÛN.	QN	ND	QN	CIN	Î	QN	C)	3 04	Û.	dN	CN	4.04
INJECTD 08/25/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
ANALYST CL INSTRMT G	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	2-60-52 0 <b>6</b>	75-69-4	75-35-4	75-34-3	156-60-5	67-66-3	107-05-2	71-55-6	58-23-5	75-27-4

Work Order # 86-08-092 Continued From Above NAME EPA method 601 Category FRACTION OIA TEST CODE EPA601 Date & Time Collected 08/20/86 RESULT DET LIMIT 0.34 0.12 0.020 0.20 0 13 0.20 0.030 0.040 0.25 0.15 0.090 0.32 0 24 0.030 REPORT Results by Sample g g S 밁 4.36 g S S 일 ĝ g Ž 1.67 S Austin 1,2-Dichloropropane Trichloroethene Bromoform trans-1, 3-Dichloropropene Dibromochloromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane Tetrachloroethene Chlorobenzene 1,4-Dichlorobenzene SURRUGATES 2-Chloroethylvinyl ether 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene COMPOUND RAS Received: 08/22/86 SAMPLE 1D 860246 10061-02-6 79-01-6 10061-01-5 78-87-5 79-00-5 110-75-8 124-48-1 75-25-2 79-34-5 127-18-4 108-90-7 541-73-1 106-46-7 95-50-1 CAS#

507 4

105 % Recovery

Bromochloromethane

74-97-5

3017-95-5

110-56-5

2-Bromo-1-chloropropane

1-4-Dichlorobutane

% Recovery

% Recovery

Received: 08/22/86 SAMPLE ID 860246

- Austin RAS

stin Results by Sample

Work Order # 86-08-092 Continued From Above

NAME EPA method 601 Category

FRACTION 01A TEST CODE EPA601 Date % Time Collected 08/20/86

84 % Recovery

1-Bromo-4-fluorobenzene

460-00-4

ND = not detected at detection limit NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

NA = not analyzed

\* = less than 5 times the detection limit

N\A= not available

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Austin

RAS

Page 5 Received: 08/22/86

NAME EPA method 602 Category FRACTION 01C TEST CODE EPA602 Date % Time Collected 08/20/86 stin Results by Sample SAMPLE ID 860246

Work Order # 86-08-092

VERIFIED CL	UNITS U9/L	RESULT DET LIMIT	0.2	0.2	0.2	0.2	0.3	0.4	0. 4	
>		RESULT	Q	Q	Q	Q	Q Z	CIN	QN	
	FILE # _	COMPOUND	Benzene	Toluene	Ethylbenzene	Chlorobenzene	1, 4-Dichlorobenzene	1, 3-Dichlorobenzene	1,2-Dichlorobenzene	
	INJE	CAS#	71-43-2	108-88-3	100-41-4	108-90-7	106-46-7	541-73-1	95-50-1	
	ANALYST 6C					4	. 5	09		

SURROGATES

a, a, a-Trifluorotoluene

8-80-86

104% recovery

ND = not detected at detection limit NOTES AND DEFINITIONS FOR THIS REPORT DET LIMIT = DETECTION LIMIT

\* = less than 5 times the detection limit NA = not analyzed

NVA = not available

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Received: 08/22/86 Page 6

Austin RAS

Work Order # 86-08-092

NAME EPA method 601

Category

SAMPLE 1D 860247

FRACTION 02A TEST CODE EPA601 Date % Time Collected 08/20/86 stin Results by Sample

VERIFIED UNITS FILE # INJECTD 08/25/86 AP P ANAL.YST INSTRMI

ರ UQ/L

DET LIMIT 0.080 밁 RESULT Chloromethane COMPOUND

74-87-3

CAS#

74-83-9

2 S Bromomethane Vinyl chloride

0.52 2 Chloroethane

Methylene chloride

75-00-3

75-01-4

2-60-51

75-69-4

510

75-35-4

Trichlorofluoromethane

0.25

S

V/V

0.13

S

1, 1-Dichloroethene

1, 1-Dichloroethane

75-34-3

trans-1, 2-Dichloroethene

0.070

Î

0.10

N

0.050

4 26

Chloroform

67-66-3

156-60-5

107-06-2

71-55-6

0.030

Ê

1,2-Dichloroethane

1, 1, 1-Trichloroethane

Carbon tetrachloride

58-53-5

75-27-4

Bromodichloremethane

0.030

E

0.12

2

4 77

0, 10

Work Order # 86-08-092 Continued From Above

stin Results by Sample

Austin

RAS

Page 7 Received: 08/22/86

A601 NAME EPA method 601 86 Category																			
FRACTION 02A TEST CODE EPA601 Date & Time Collected 08/20/86	DET LIMIT	0.040	0.34	0.12	0 0 0 0	0.020	0. 20	0, 13	0.20	0.030	0.030	0.25	0.32	0.15	0.24		% Recovery	Recovery	% Recovery
N 02A Time Colle	RESULT	QN	QN	0.13	4.77	QN	(ÎN	QN	1.96	CN	CN	QN.	ÎN	QN	QN		113 %	%	%
FRACTIO Date &	COMPOUND	1,2-Dichloropropane	trans-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1,1,2-Trichloroethane	cis-1,3-Dichloropropene	2-Chloroethylvinyl ether	Bromoform	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Chlorobenzene	1,3-Dichlorobenzene	1, 2-Dichlorobenzene	1, 4-Dichlorobenzene	SURROGATES	Bromochloromethane	2-Bromo-1-chloropropane	1-4-Dichlorobutane
SAMPLE 1D 860247	CAS#	78-87-5	10061-02-5	79-01-6	124-48-1	79-00-5	10061-01-5	110-75-8	75-25-5	79-34-5	127-18-4	108-90-7	541-73-1	95-50-1	106-48-7		74-97-5	3017-95-6	110-55-5
SAMPI									4	51	11								

STATES OF STATES AND STATES AND ASSOCIATE

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### THE MANAGEMENT OF THE PROPERTY

Received: 08/22/86 SAMPLE 1D 860247

Results by Sample Austin

REPORT

Work Order # 86-08-092 Continued From Above

FRACTION 02A TEST CODE EPA601 Date & Time Collected 08/20/86

NAME EPA method 601 Category

460-00-4

93 % Recovery 1-Bromo-4-fluorobenzene

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit

NNA= not available

Austin RAS

stin Results by Sample

Work Order # 86-08-092

Received: 08/22/86

SAMPLE 1D 860247

NAME EPA method 602 FRACTION 02C TEST CODE EPA602 Date % Time Collected 08/20/86

Category

VERIFIED

AHAL YST INSTRMI

FILE # INJECTED 08/25/86

UNITS

CAS#

S

Benzene

RESULT DET LIMIT

COMPOUND

밁

Toluene

108-88-3

100-41-4

108-90-7

105-46-7

541-73-1

95-50-1

71-43-2

0.2

밁

Ethylbenzene

0.2

일

Chlorobenzene

က ဝ

S

1, 4-Dichlorobenzene

4.0

2

1, 3-Dichlorobenzene

1,2-Dichlorobenzene

0.4

S

SURROGATES

a, a, a-Trifluorotoluene

8-80-86

99% recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

MD = not detected at detection limit

NA = not analyzed

> = less than 5 times the detection limit NVA = not available

- Austin REPORT Results by Sample

RAS

Work Order # 86-08-092

Page 10 Received: 08/22/86

SAMPLE ID 860248

NAME EPA method 601 Category

FRACTION 03A TEST CODE EPA601 Date % Time Collected 08/20/86

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Page 12 Received: 08/22/86

RAS

Austin

tin Results by Sample

Work Order # 86-08-092 Continued From Above

SAMPLE 1D 860248

FRACTION 03A TEST CODE EPA601 Date & Time Collected 08/20/86

NAME EPA method 601 Category

1-Bromo-4-fluorobenzene 460-00-4

91 % Recovery

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed \* = less than 5 times the detection limit

N\A= not available

516 4

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ROMENT RESERVED TO THE PROPERTY OF THE PROPERT

Received: 08/22/86

SAMPLE 1D 860248

Results by Sample Austin

RAS

REPORT

Work Order # 86-08-092

NAME EPA method 602

FRACTION 03C TEST CODE EPA602 Date % Time Collected 08/20/86

Category

CL VERIFIED

UNITS

RESULT DET LIMIT 0.2

COMPOUND

CAS#

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

541-73-1

95-50-1

FILE #

INJECTED 08/25/86

김

ANALYST INSTRMT Benzene

Toluene

Ethylbenzene

2 S 0.2 S

S

Chlorobenzene

0.2

0.3

S

1, 4-Dichlorobenzene

0.4

S

1, 3-Dichlorobenzene

N

1, 2-Dichlorobenzene

Ö

101% recovery

a, a, a-Trifluorotoluene

8-80-86

SURROGATES

MOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT ND = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit NNA = not available

TO MANAGEMENT OF STANCES OF STANC Page 14 Received: 08/22/86

Austin RAS

REPORT Results by Sample

Work Order # 86-08-092

SAMPLE ID 860249

FRACTION 04A TEST CODE EPA601 Date % Time Collected 08/20/86

NAME EPA method 601

Category

VERIFIED CL	DET LIMIT	0.080	1. 2	0.18	0.52	0.25	A/N	0.13	0.070	0.10	0 020	0.030	0.030	0.12	0.10
FILE #	RESULT	QN	QN	QN	CIN	QN	QN	QN	QN	QN	2, 55	CIN	CIN	CIN	3. 93
INJECTD 08/25/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
RMT G	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	75-09-2	75-69-4	75-35-4	75~34~3	156~60.5	67-64-3	107-06-2	71-55-6	5-52-95	75-27-4
ANALYST INSTRMT					4	5	18								

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RAS

Austin

tin Results by Sample

Work Order # 86-08-092 Continued From Above

SAMPLE ID 860249

FRACTION 04A TEST CODE EPA601 Date & Time Collected 08/20/86

NAME EPA method 601 Category

% Recovery

81

1-Bromo-4-fluorobenzene

460-00-4

\* = less than 5 times the detection limit

N\A= not available

520

4

NA = not analyzed

DET LIMIT = DETECTION LIMIT ND = not detected at detection limit

NOTES AND DEFINITIONS FOR THIS REPORT

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Received: 08/22/86 Page 17

- Austin RAS

REPORT Results by Sample

Work Order # 86-08-092

**SAMPLE ID 860249** 

FRACTION 04C TEST CODE EPA602 NAME EPA method 602 Date & Time Collected 08/20/86 Category

Category

CL VERIFIED

> ANALYST INSTRMI

INJECTED 08/25/86

FILE

CAS#

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

541-73-1

95-50-1

RESULT DET LIMIT COMPOUND Benzene

2 Toluene

0.2

윋 밀

0

0.2

S

Chlorobenzene

1, 4-Dichlorobenzene

1, 3-Dichlorobenzene

1,2-Dichlorobenzene

Ethylbenzene

0

0.3 2

0.4

o Ñ

윋

SURROGATES

a, a, a-Trifluorotoluene

8-80-86

99% recovery

MUNICES AND DEFINITIONS FOR THIS REPORT

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

NA = not analyzed

\* = less than 5 times the detection limit

NAM = not available

SSTATEMENT OF A CONTRACT OF A Received: 08/22/86 Page 18

RAS

Work Order # 86-08-092

- Austin REPORT Results by Sample

FRACTION 05A TEST CODE EPA601 NAME EPA method 601 Date & Time Collected 08/20/86 Category Category SAMPLE 1D 860251

VERIFIED CL ONITS UNITS	111	90	લ	81	52	5	₹i	<u> </u>	070	07	20	30	ŌE	21	10
	DET LIMIT	080 0	1.2	0.18	0.52	0.25	NA	0.13	0.070	0.10	0.050	0.030	0.030	0.12	0.10
FILE #	RESULT	QN	QN	QN	QN	GN	CN	ND		QN.	2.38	an	ND	QN	3.67
INJECTD 08/25/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
ANALYST INSTRMT G	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	2-60-51. <b>K</b>	75-69-4	75-35-4	75-34-3	156-60-5	67-65-3	107-06-2	71-55-6	56-23-5	75-274

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<u> </u>					
Pag Rec	Page 19 Received: 08/22/86	RAS - Austin Resu	lts by San	REPORT Sample	Work Order # 86-08-092 Continued From Above
₩ ₩	SAMPLE ID 860251	FRACTION Date & Ti	OSA TE	05A TEST CODE EPA601 ime Collected 08/20/86	NAME EPA method 601 Category
	CASE	COMPOUND	RESULT	DET LIMIT	
	78-87-5	1,2-Dichloropropane	QN	0.040	
	10061-02-6	trans-1,3-Dichloropropene	QN	0.34	
	79-01-6	Trichloroethene	0.29	0. 12	
	124-48-1	Dibromochloromethane	4.61	0.090	
	79-00-5	1, 1, 2-Trichloroethane	QN	0.020	
	10061-01-5	cis-1,3-Dichloropropene	QN	0.20	
	110-75-8	2-Chloroethylvinyl ether	CN	0.13	
	75-25-2	Bromoform	1.75	0.20	
4	79-34-5	1,1,2,2-Tetrachloroethane	QN	0.030	
52	127-18-4	Tetrachloroethene	QN	0.030	
3	108-90-7	Chlorobenzene	QN	0.25	
	541-73-1	1,3-Dichlorobenzene	ON	0.32	
	95-50-1	1,2-Dichlorobenzene	N.	0.15	
	106-46-7	1,4-Dichlorobenzene	CIN	0.24	
		SURROGATES			
	74-97-5	Bromochloromethane	99 % R	Recovery	
	3017-95-6	2-Bromo-1-chloropropane	7. R	Recovery	
	110-56-5	1-4-Dichlorobutane	% %	Recovery	
	)		)		

### MANAGE STATES

Page 20 Received: 08/22/86

SAMPLE 1D 860251

Work Order # 86-08-092 Continued From Above

NAME EPA method 601

Category

REPORT Results by Sample

Austin

RAS

FRACTION 05A TEST CODE EPA601 Date & Time Collected 08/20/86

% Recovery

91

1-Bromo-4-fluorobenzene

460-00-4

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524

\* = less than 5 times the detection limit

N\A= not available

NA = not analyzed

ND = not detected at detection limit

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

FRACTION 05C TEST CODE EPA602 Date % Time Collected 08/20/86 tin Results by Sample Austin RAS Received: 08/22/86 SAMPLE 1D 860251 Page 21

Work Order # 86-08-092

NAME EPA method 602 Category

CL UNITS COMPOUND RESULT DET LIMIT 0 ائ 0.2 0 0 0.3 0.4 0.4 VERIFIED S 2 물 Ñ g g S Benzene Toluene Chlorobenzene 1,4-Dichlorobenzene Ethylbenzene 1, 3-Dichlorobenzene 1, 2-Dichlorobenzene FILE # INJECTED 08/25/86 CAS# 71-43-2 108-88-3 100-41-4 108-90-7 106-46-7 95-50-1 541-73-1 CL ANAL YST INSTRMI

525

4

SURROGATES

a, a, a-Trifluorotoluene 8-80-86

114% recovery

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit

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N\A = not available

Austın RAS

stin Results by Sample

Work Order # 86-08-092

Page 22 Received: 08/22/86

SAMPLE 1D 860252

CDACTION 04A

SAMP.	SAMPLE 10 860252	FRACTION OSA Date % Time (	2011	FRACTION OSA TEST CODE EPA601 Date % Time Collected 08/20/86	NAME EPA method 601 Category	Q →
ANAL INS.	ANALYST RP	INJECTD 08/25/86	FILE #	VERIFIED UNITS	1/6n	
	CAS#	COMPOUND	RESULT	DET LIMIT		
	74-87-3	Chloromethane	QN	0.080		
	74-83-9	Bromomethane	QN	1.2		
	75-01-4	Vinyl chloride	QN	0.18		
	75-00-3	Chloroethane	Q	0.52		
4 5	75-09-2	Methylene chloride	ON	0.25		
526	75-69-4	Trichlorofluoromethane	N	<b>4</b> /2		
6	75-35-4	1,1-Dichloroethene	QN	0.13		
	75-34-3	1,1-Dichloroethane	OIN	0.070		
	156-60-5	trans-1,2-Dichloroethene	ND	0.10		
	67-66-3	Chloroform	2.15	0.050		
	107-05-2	1,2-Dichloroethane	ON.	0.030		
	71-55-6	1, 1, 1—Trichloroethane	ON	0.030		
	8-83-8	Carbon tetrachloride	CIN	0.12		
	75-27-4	Bromodichloromethane	3.47	0 10		

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	*				
Page 23 Received	23 Ved: 08/22/86	RAS - Austin Results by	lts by San	REPORT Sample	Work Order # 86-08-092 Continued From Above
SAMPLE ID	E 1D 860252	FRACTION O6A Date % Time	O6A TE	1 06A TEST CODE EPA601 Ime Collected 08/20/86	NAME EPA method 601 Category
	CAS#	COMPOUND	RESULT	DET LIMIT	
	78-87-5	1,2-Dichloropropane	N	0.040	
	10061-02-6	trans-1, 3-Dichloropropene	QN	0.34	
	79-01-6	Trichloroethene	0.23	0.12	
	124-48-1	Dibromochloromethane	4.19	0.090	
	79-00-5	1, 1, 2-Trichloroethane	CIN	0.020	
	10061-01-5	cis-1,3-Dichloropropene	QN	0.20	
4	110-75-8	2-Chloroethylvinyl ether	Q	0.13	
5	75-25-2	Втомоfотм	1.81	0. 20	
27	79-34-5	1,1,2,2-Tetrachloroethane	NI	0.030	
	127-18-4	Tetrachloroethene	QN	0.030	
	108-90-7	Chlorobenzene	QN	0.25	
	541-73-1	1, 3-Dichlorobenzene	QN	0.32	
	95-50-1	1,2-Dichlorobenzene	Q	0.15	
	166-45-7	1,4-Dichlorobenzene	ND	0.24	
		SURROGATES			
	74-97-5	Bromochloromethane	105 % R	Recovery	
	3017-95-6	2-Bromo-1-chloropropane	X X	Recovery	
	110-56-5	1-4-Dichlorobutane	% K	% Recovery	
	)		)		

# EXECUTADO DO STRUCKA DESCRIPTO DESCRIPTA AND STRUCKA STRUCKA STRUCKA STRUCKA STRUCKA STRUCKA STRUCKA STRUCKA S K FA KOHAN

Work Order # 86-08-092 Continued From Above NAME EPA method 601 Category FRACTION 06A TEST CODE EPA601 Date & Time Collected 08/20/86 stin Results by Sample Page 24 Received: 08/22/86 SAMPLE ID 860252

Austin

RAS

89 % Recovery

1-Bromo-4-fluorobenzene

460-00-4

NOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

NI) = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit N\A= not available

tin REPORT Results by Sample - Austin RAS Received: 08/22/86 SAMPLE ID 860252 Page 25

Work Order # 86-08-092 NAME EPA method 602 Category FRACTION OGC TEST CODE EPA602 Date % Time Collected 08/20/86

5 UNITS COMPOUND RESULT DET LIMIT 0.5 0,2 0 0.2 о Э 4.0 VERIFIED 2 N S Š Ω Q Ethylbenzene Chlorobenzene Benzene Toluene 1, 4-Dichlorobenzene 1, 3-Dichlorobenzene FILE # INJECTED 08/25/86 CAS# 71-43-2 108-88-3 100-41-4 108-90-7 106-46-7 541-73-1 AP P

> **ANALYST** INSTRMI

SURROGATES

4

S

1, 2-Dichlorobenzene

95-50-1

101% recovery a, a, a-Trifluorotoluene 8-80-86

MOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

NI) = not detected at detection limit

NA = not analyzed

\* = less than 5 times the detection limit

CAT SECTION SECTION SECTION SECTION SECTIONS SE

N\A = not available

Austin RAS

stin Results by Sample

Work Order # 86-08-092

Received: 08/22/86 Page 26

SAMPLE 1D 860253

FRACTION 07A TEST CODE EPA601 NAME EPA method 601 Date & Time Collected 08/20/86 Category

1/bn VERIFIED UNITS FILE # INJECTD 08/25/86 R CAS# ANAL YST INSTRMT

DET LIMIT 0.080 RESULT S Chloromethane COMPOUND

74-87-3

74-83-9

75-01-4

2 Bromomethane Vinyl chloride

0.18

Chloroethane

75-00-3

75-09-2

530

75-69-4

75-35-4

Methylene chloride

**Trichlorofluoromethane** 

1, 1-Dichloroethene

0.52

0.25

N/A

0.13

0.070

呈

1, 1-Dichloroethane

75-34-3

156-60-5

E-99-19

107-06-2

71-55-6

56-23-5

75-27-4

trans-1, 2-Dichloroethene

0.10

S

0.050

2.79

Chloroform

0.030

밁

1,2-Dichloroethane

1, 1, 1-Trichloroethane

Carbon tetrachloride

0.030

0.12

g

0.10

4.69

Bromodichloromethane

	Work Order # 86-08-092 Continued From Above	NAME EPA method 601 Category																				
	REPORT nple	FRACTION O7A TEST CODE EPA601 Date & Time Collected 08/20/86	DET LIMIT	0.040	0.34	0. 12	0.090	0.020	0. 20	0. 13	0.20	0. 030	0.030	0.25	0.32	0.15	0.24		<u>108</u> % Recovery	Recovery	% Recovery	
	tin Results by Sample	OZA TE	RESULT	QN	QN	0.25	5.58	QN	QN	QN	2.00	QN	QN	CN	Q	Q	ÛN.		108 %	%	- X	)
CORPORATION	RAS - Austin Resul	FRACTION Date & Ti	COMPOUND	1,2-Dichloropropane	trans-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1,1,2-Trichloroethane	cis-1,3-Dichloropropene	2-Chloroethylvinyl ether	Bromoform	1, 1, 2, 2-Tetrachloroethane	Tetrachloroethene	Chlorobenzene	1, 3-Dichlorobenzene	1, 2-Dichlorobenzene	1,4-Dichlorobenzene	SURROGATES	Bromochloromethane	2-Bromo-1-chloropropane	1-4-Dichlorobutane	
	e 27 eived: 08/22/86	PLE 1D 860253	CAS#	78-87-5	10061-02-6	79-01-6	124-48-1	79-00-5	10061-01-5	110-75-8	75-25-2	79-34-5	127-18-4	108-90-7	541-73-1	95-50-1	106-46-7		74-97-5	3017-95-6	110-55-5	)

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Received: 08/22/86 Page 28

SAMPLE ID 860253

Results by Sample

Work Order # 86-08-092 Continued From Above

NAME EPA method 601

Category

FRACTION 07A TEST CODE EPA601 Date % Time Collected 08/20/86

95 % Recovery

1-Bromo-4-fluorobenzene

460-00-4

\* = less than 5 times the detection limit

N\A= not available

532

4

NA = not analyzed

ND == not detected at detection limit

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

REPORT

Austin

RAS

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Received: 08/22/86 Page 29

itin Results by Sample - Austin RAS

Work Order # 86-08-092

SAMPLE ID 860253

NAME EPA method 602

Category

5 UNITS COMPOUND RESULT DET LIMIT VERIFIED FRACTION O7C TEST CODE EPA602 Date & Time Collected 08/20/86 FILE # INJECTED 08/25/86 CAS# RP **ANALYST** INSTRMI

0.2 0.2 Ñ Benzene

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

541-73-1

**5**33

4

95-50-1

밁 Toluene

ᄝ Ethylbenzene

2 Chlorobenzene

0

0

0

0.4

0.5

물 2 1, 3-Dichlorobenzene 1, 4-Dichlorobenzene

물 1, 2-Dichlorobenzene

111% recovery a, a, a-Trifluorotoluene 8-80-86

SURROGATES

MOTES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

NA = not analyzed

\* = less than 5 times the detection limit

SOCIOLI ESCOCIOLI ASSOCIAL ASSOCIAL SEGMENT ASSOCIAL PROPERTI ESCOCIAL ESCOCIAL ESCOCIAL ESCOCIAL ESCOCIAL ESC

N\A = not available

Received		**************************************					
PRACTION 08A   TEST CODE EPA601   NAME EPA method 601			- Aus	by Sag	REPORT ID 1e	Order #	incourters.
ANNALYST CASH COMPOUND RESULT DET LIMIT  CASH COMPOUND RESULT DET LIMIT  74-83-9 Bromomethane ND 0.080  74-83-9 Chlorothane ND 0.25  75-01-4 Vinyl chloride ND 0.25  75-03-3 I.1-Dichlorothane ND 0.020  155-04-5 trans-1.2-Dichlorothane ND 0.020  155-05-3 I.2-Dichlorothane ND 0.030  107-05-2 I.2-Dichlorothane ND 0.030  75-33-5 Carton tetrachloride ND 0.030  75-33-5 Carton tetrachloride ND 0.030		PLE 1D 860254	FRACTION Date & To	OBA TEIME COllec	08/20/86	EPA method Catego	),Y,,TEC,,TEC,,TEC,,YEC
CAS#         COMPOUND         RESULT           74-87-3         Chloromethane         ND           74-83-9         Bromomethane         ND           75-01-4         Vinyl chloride         ND           75-09-2         Methylene chloride         ND           75-69-4         Trichlorofloromethane         ND           75-35-4         1,1-Dichloroethane         ND           75-34-3         1,1-Dichloroethane         ND           156-60-5         trans-1,2-Dichloroethane         ND           67-66-3         chloroform         2,92           107-0s-2         1,1,1-Trichloroethane         ND           71-55-6         1,1,1-Trichloroethane         ND           75-23-9         Carbon tetrachloride         ND           75-27-4         Bromodichloromethane         4,76	ŽŽ Ž		INJECTD 08/26/86		VERIFIED	CL CL	
74-87-3       Chloromethane       ND         74-83-9       Bromomethane       ND         75-01-4       Vinyl chloride       ND         75-09-2       Methylene chloride       ND         75-69-4       Trichlorofluoromethane       ND         75-35-4       Trichlorofluoromethane       ND         75-34-3       1,1-Dichloroethane       ND         75-34-3       1,2-Dichloroethane       ND         67-66-3       Chloroform       2,92         107-0s-2       1,1-Trichloroethane       ND         71-55-6       1,1,1-Trichloroethane       ND         75-27-4       Bromodichloromethane       A.726	ورود والم	CAS#	COMPOUND		DET LIMIT		envenven
74-83-9  Normyl chloride  75-01-4  Vinyl chloride  ND  75-00-3  Methylene chloride  ND  75-69-4  Trichlorofluoromethane  75-35-4  Trichlorofluoromethane  75-35-4  Trichlorofluoromethane  ND  75-34-3  Trichlorofluoromethane  ND  67-66-3  Trichlorofluoromethane  ND  67-66-3  Trichlorofluoromethane  ND  67-66-3  Trichlorofluoromethane  ND  71-55-6  Trichlorofluoromethane  ND  71-55-7  Trichloromethane  ND	الرحاء بال	74-87-3	Chloromethane	QN	0.080		HCTACTA
75-01-4 Chloroethane ND 75-09-2 Methylene chloride ND 75-09-2 Trichlorofluoromethane ND 75-35-4 Trichlorofluoromethane ND 75-34-3	a via sia	74-83-9	Bromomethane	QN			
T5-00-3  Methylene chloride  ND  75-69-4  Trichlorofluoromethane  ND  75-35-4  Trichlorofluoromethane  ND  75-34-3  Trichlorofluoromethane  ND  1,1-Dichloroethane  ND  156-60-5  Trans-1,2-Dichloroethane  ND  107-06-2  1,2-Dichloroethane  ND  71-55-6  1,1-Trichloroethane  ND  71-55-6  1,1,1-Trichloroethane  ND  75-23-5  Carbon tetrachloride  ND  75-27-4  Bromodichloromethane  4,76	ታኒ ታኒ	75-01-4		QN	0.18		and the
75-69-2  Methylene chloride  75-69-4  Trichlorofluoromethane  75-35-4  1,1-Dichloroethane  75-34-3  1,1-Dichloroethane  ND  156-60-5  176-60-3  172-Dichloroethane  ND  177-56-3  172-Dichloroethane  ND  171-55-6  171-1711chloroethane  ND  171-55-7  171-57-7  175-27-4  Bromodichloromethane  44.76		75-00-3	Chloroethane	CIN	0.52		
75-69-4 Trichlorofluoromethane ND 75-34-3 1,1-Dichloroethane ND 75-34-3 1,1-Dichloroethane ND 67-66-3 1,2-Dichloroethane ND 71-55-6 1,1-1-Trichloroethane ND 71-55-6 1,1,1-Trichloroethane ND 75-27-4 Bromodichloromethane 4,76			chlorid	QN	0.25		YUUC.
75-35-4       1,1-Dichloroethene       ND         75-34-3       1,1-Dichloroethene       ND         156-60-5       trans-1,2-Dichloroethene       ND         67-66-3       Chloroform       2,92         107-06-2       1,2-Dichloroethane       ND         71-55-6       1,1,1-Trichloroethane       ND         56-23-5       Carbon tetrachloride       ND         75-27-4       Bromodichloromethane       4,76			Trichlorofluoromethane	QN	4/2		
156-60-5 trans-1, 2-Dichloroethane ND 67-66-3 trans-1, 2-Dichloroethane ND 107-06-2 1, 2-Dichloroethane ND 71-55-6 1, 1, 1-Trichloroethane ND 56-23-5 Carbon tetrachloride ND 75-27-4 Bromodichloromethane 4,76	w. we:	75-35-4	1,1-Dichloroethene	CIN	0.13		YOTA'OTA
156-60-5 trans-1,2-Dichloroethene ND 67-66-3 Chloroform 2.92 C 1,2-Dichloroethane ND 71-55-6 1,1,1-Trichloroethane ND 56-23-5 Carbon tetrachloride ND 75-27-4 Bromodichloromethane 4,76	er nak k	75-34-3	1,1-Dichloroethane	CIN	0.070		( Property
67-66-3       Chloroform       2.92       C         107-06-2       1,2-Dichloroethane       ND       C         71-55-6       1,1,1-Trichloroethane       ND       C         56-23-5       Carbon tetrachloride       ND       C         75-27-4       Bromodichloromethane       4,76       C	e na na	156-60-5	trans-1,2-Dichloroethene	QN	0.10		TOCTOR!
107-06-2 1,2-Dichloroethane ND 71-55-6 1,1,1-Trichloroethane ND 56-23-5 Carbon tetrachloride ND 75-27-4 Bromodichloromethane 4,76	*.A *.B	67-66-3	Chloroform	- 1	0.050		
71-55-6 1,1,1-Trichloroethane ND Carbon tetrachloride ND 75-23-5 Carbon tetrachloride ND 75-27-4 Bromodichloromethane 4.76	7.0 7.1 Y	107-06-2	1,2-Dichloroethane	Q N	0.030		טרי ענייבאני י
56-23-5 Carbon tetrachloride ND 75-27-4 Bromodichloromethane 4.76		71-55-6	1,1,1-Trichloroethane	QN	0.030		
75-27-4 Bromodichloromethane 4.76		56-23-5	Carbon tetrachloride	CIN	0.12		
	-	75-27-4	Bromodichloromethane	4.76	0.10		10000
		)		e e			POR CARCA

		Received A	- 6.72	KA PAR	<b>6</b> 152-X				renkén	enter e	<u>مائمان</u>	<b>र्</b> षण्य	र्याच्य <u>्</u> यस	<del>gw</del> gw,	rerer	V CWCV			yarar		KTXT	PERE
	Work Order # 86-08-092 Continued From Above	NAME EPA method 601 Category																				
STATE VILLERS	REPORT Sample	FRACTION OBA TEST CODE EPA601 Date % Time Collected 08/20/86	DET LIMIT	0.040	0.34	0. 12	0.090	0.020	0.20	0.13	0. 20	0.030	0.030	0.25	0 35	0.15	0.24		Recovery	Recovery	Recovery	
55.5557 <b>1</b> 8.55	lts by Sam	OBA TE	RESUL.T	Q	Q	N	5.19	QN	QN	Q	1 89	QN	QN	QN	ÜN	QN	î		64** % R	7. R	7. R	)
MMNHOWN COCCOS STATES OF THE S	RAS - Austin Resu	FRACTION Date & T	COMPOUND	1, 2-Dichloropropane	trans-1,3-Dichloropropene	Trichloroethene	Dibromochloromethane	1, 1, 2-Trichloroethane	cis-1,3-Dichloropropene	2-Chloroethylvinyl ether	Bromoform	1,1,2,2-Tetrachloroethane	Tetrachloroethene	Chlorobenzene	1, 3-Dichlorobenzene	1,2-Dichlorobenzene	1, 4-Dichlorobenzene	SURROGATES	Bromochloromethane	2-Bromo-1-chloropropane	1-4-Dichlorobutane	
	Page 31 Received: 08/22/86	SAMPLE ID 860254	CAS#	78-87-5	10061-02-6	79-01-6	124-48-1	79-00-5	10051-01-5	110-75-8	5-52-5 <i>2</i>	79-34-5	127-18-4	108907	541-73-1	95-50-1	106-45-7		74-97-5	3017-95-6	110-56-5	)
****			N.Y.	X																المناه		

Page 32 Received: 08/22/86

SAMPLE 1D 860254

Austin Results by Sample

RAS

Work Order # 86-08-092 Continued From Above

FRACTION OBA TEST CODE EPA601 NAME EPA method 601 Date & Time Collected 08/20/86 Category

108 % Recovery

1-Bromo-4-fluorobenzene

460-00-4

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit NA = not analyzed

\* = less than 5 times the detection limit

N\A= not available

Page 33

itin Results by Sample Austin RAS

Work Order # 86-08-092

Received: 08/22/86

SAMPLE 1D 860254

FRACTION OBC TEST CODE EPA602 Date & Time Collected 08/20/86

NAME EPA method 602

Category

김 VERIFIED

UNITS COMPOUND RESULT DET LIMIT 0.2 0.2 0.2 0.2 0.3 4.0 2 2 Ŝ S S 2 Benzene Ethylbenzene Chlorobenzene Toluene 1,4-Dichlorobenzene 1, 3-Dichlorobenzene FILE # INJECTED 08/25/86 CAS# 71-43-2 108-88-3 100-41-4 108-90-7 106-46-7 541-73-1 ANALYST INSTRMT

SURROGATES

0.4

2

1, 2-Dichlorobenzene

95-50-1

a, a, a-Trifluorotoluene

8-80-86

109% recovery

MOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

= less than 5 times the detection limit NA = not analyzed

N\A = not available

<u>Pedel SSSSSI 222222 SSSSSI SSSSSI PREEZET PERFERT PERFECT BESSSSI KSSSSI BESSSSI BESSSS DYNAME KKK</u>

2345855	92		The second second second second second second second second second second second second second second second se		* ** *** *****************************			B 7 M 7.1	. 4 6 4 6	THE WINE CO	* C* E*								
\$555555 <b>CCCCCC</b>	Work Order # 86-08-092	NAME EPA method 601 Category	CL ug/L																
**************************************	REPORT Sample	0DE EPA601 08/20/86	VERIFIED UNITS	DET LIMIT	0.080	1.2	0.18	0.52	0.25	V/N	0.13	0.070	0.10	0.050	0.030	0.030	0. 12	0.10	
	lts by San	N <u>09A</u> TEST C Time Collected	F1LE # _	RESULT	Ŝ	Q	QN	ND	43.3	2.26	QN	QN	QN	2.57	QN	QN	QN	3, 68	)
	RAS - Austin Resul	FRACTION (	INJECTD <u>08/26/86</u>	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichlovomethane	
	Page 34 Received: 08/22/86	SAMPLE ID 860255	ANALYST INSTRMT	CAS#	74-87-3	74-83-9	75-01-4	22-00-3	5-60-52 <b>53</b>	75-69-4	75-35-4	75-34-3	156-60-5	6766-3	107-06-2	71-55-6	56-23-5	75-27-4	)

Page 35 Received:	35 .ved: 08/22/86	RAS - Austin Resul	ts by San	REPORT Sample	Work Order # 86-08-092 Continued From Above
SAMPL	SAMPLE ID 860255	FRACTION Date & Ti	O9A TE	FRACTION 09A TEST CODE EPA601 Date & Time Collected 08/20/86	NAME EPA method 601 Category
	CAS#	COMPOUND	RESULT	DET LIMIT	
	78-87-5	1, 2-Dichloropropane	QN	0.040	
	10061-02-6	trans-1, 3-Dichloropropene	QN	0.34	
	79-01-6	Trichloroethene	QN	0.12	
	124-48-1	Dibromochloromethane	4.45	0.00	
	79-00-5	1, 1, 2-Trichloroethane	Q	0.020	
	10061-01-5	cis-1, 3-Dichloropropene	Q N	0.20	
	110-75-8	2-Chloroethylvinyl ether	QN	0.13	
4	75-25-2	Bromoform	1.78	0.20	
539	79-34-5	1, 1, 2, 2-Tetrachloroethane	Q	0.030	
9	127-18-4	Tetrachloroethene	QN	0.030	
	108-90-7	Chlorobenzene	QN	0.25	
	541-73-1	1, 3-Dichlorobenzene	Q	0.32	
	95-50-1	1, 2-Dichlorobenzene	Q	0.15	
	106-45-7	1, 4-Dichlorobenzene	CN	0.24	
		SURROGATES			
	74-97-5	Bromochloromethane	112 % Re	Recovery	
	3017-95-6	2-Bromo-1-chloropropane	% Re	Recovery	
	110-56-5	1-4-Dichlorobutane		Recovery	
	)		)		

84888

Received: 08/22/86 Page 36

SAMPLE ID 860255

Work Order # 86-08-092 Continued From Above

REPORT

Austin

RAS

Results by Sample

NAME EPA method 601 Category

450-00-4

FRACTION 09A TEST CODE EPA601 Date & Time Collected 08/20/86

110 % Recovery 1-Bromo-4-fluorobenzene

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

\* = less than 5 times the detection limit

N\A= not available

Austin KAS Received: 08/22/86 SAMPLE 1D 860255 

stin Results by Sample

FRACTION 09C TEST CODE EPA602 Date % Time Collected 08/20/86

NAME EPA method 602 Category

Work Order # 86-08-092

CL VERIFIED

**UQ/L** UNITS FILE # INJECTED 08/25/86 RP

ANALYST INSTRMT

RESULT DET LIMIT COMPOUND CAS#

0 S Benzene

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

541-73-1

0 1.53 Toluene

윋 Ethylbenzene

0 0.2 S Chlorobenzene

о Э 0.4 2 S 1,4-Dichlorobenzene 1,3-Dichlorobenzene 0.4

Q

1,2-Dichlorobenzene

95-50-1

SURROGATES

111% recovery a, a, a-Trifluorotoluene 8-80-86

NOTES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = DETECTION LIMIT

NI) = not detected at detection limit

NA = not analyzed

\* = less than 5 times the detection limit N\A = not available NX MANDAMAN XXI COR POR A TION

Potential error for such low values ranges between 50 and 100%. specific matrix was not within acceptable limits indicating Work Order # 86-08-093 CONTACT CONDVER \* Indicates a value less than 5 times the detection limit @ Indicates that spike recovery for this analysis on the -05 4) - 4 CERTIFIED BY 2nd column confirmation performed on EPA601: -02, PREPARED Radian Analytical Services Austin, TX 78751 REPORT 8501 Mo-pac B an interferent present. Footnotes and Comments 512-454-4797 PO Box 9948 09/03/86 09:27:21 PHONE ATTEN Austın 0 RAS SAMPLES Pricite under separate cover sacility <u>General Dunamics</u> PLANTA Plant 4, US F 212-027-27-40 ATTEN Larry French Becalved: 08/22/86 GGRE ID Volstiles FEFERT Radian THE MAN AUSTIN CLIENT YNARMC D # - (4 - (5) - (5) - (5)

TEST CODES and NAMES used on this report

EPA601 EPA502

SAMPLE IDENTIFICATION

840257 840258 940259

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Page 2 Received: 08/22/86

SANPLE ID 860257

stin Results by Sample - Austin

RAS

Work Order # 86-08-093

NAME EPA method 601

Category FRACTION 01A TEST CODE EPA601 Date % Time Collected 08/21/86

TED MCL	S. 09/L																
VERIFIED	UNITS	DET LIMIT	0.30	1.2	0.21	0.52	0.25	0.36	0.49	0.080	0.10	060.0	0.000	060 0	0.13	0.10	
# u		RESULT	QN	N	QN	QN	QN	1.87	QN	QN	ND	QN	UN	CIN	QN	GN	•
	INJECTD 08/26/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane	
15.V	INSTRMT 6	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	2-60-52	75-69-4	75-35-4	75-34-3	156-60-5	67-65-3	107~08~8	71-55-6	56-23-5	75-27-4	•
40.0	521					4	54	4									

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1, 1, 2 1, 3, 1, 3, 1, 4, 1,	NOIL NOIL NOIL	RAS - Austin Results by Sample	FRACTION 01A TEST CODE EPA601 NAME EPA method 601 Date % Time Collected 08/21/86 Category	COMPOUND RESULT DET LIMIT	1,2-Dichloropropane ND 0.080	s-1,3-Dichloropropene ND 0.34	Trichloroethene ND 0.20	Dibromochloromethane ND 0.40	1, 1, 2-Trichloroethane ND 0.020	cis-1,3-Dichloropropene ND 0.20	2-Chloroethylvinyl ether ND 0.48	Bromoform ND 0.27	1, 1, 2, 2-Tetrachloroethane ND 0.030	Tetrachloroethene ND 0.030	Chlorobenzene ND 0.25	1,3-Dichlorobenzene ND 0.37	1,2-Dichlorobenzene ND 0.54	1,4-Dichlorobenzene ND 0.36	SURROGATES	Bromochloromethane <u>111</u> % Recovery	3romo-1-chloropropane % Recovery	
1, 1, 2, 2-1, 1, 1, 2, 2-1, 1, 1, 1, 2, 2-1	RADIA	98/33/80	10 860257	CAS#		trans-1,			7	&		75-25-2		<b>-</b>	- 7		F <b>4</b>				3017-95-6 2-Bromo-1-c	

Received: 08/22/86 \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

52791E 1D 860257

FRACTION O1A TEST CODE EPA601 Date % Time Collected 08/21/86

Results by Sample

REPORT

Austin

RAS

Work Order # 86-08-093 Continued From Above NAME EPA method 601

Category

1-Bromo-4-fluorobenzene 118 % Recovery 460-00 4

BOTHS AND DEFINITIONS FOR THIS REPORT.

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

\* = less than 5 times the detection limit NA = not analyzed

N\A= not available

Paralyed: 08/22/86 (T)

SAMPLE 10 860257

Results by Sample Austin RAS

Work Order # 86-08-093

FRACTION OIC TEST CODE EPA602 Date & Time Collected 08/21/86

NAME EPA method 602

Category

MCL VERIFIED

> R TSYLPST LESTAMT

UNITS FILE # INJECTED 08/29/86

CAS#

71-43-2

108-88-3

100-41-4

RESULT DET LIMIT COMPOUND

뮏 Benzene Toluene

0

3.58

0.5

Ethylbenzene

밀

0

2

Chlorobenzene

0

2

1,4-Dichlorobenzene

106-46-7

541-73-1

95-50-1

108-90-7

1, 3-Dichlorobenzene

1, 2-Dichlorobenzene

0

9 밀

0.4

2

SURROGATES

99% recovery a, a, a-Trifluorotoluene

AND DEFINITIONS FOR THIS REPORT

98-08-8

We a new detected at detection limit DET LIMIT = DETECTION LIMIT No m not analyzed

\* = lett than 5 times the detection limit

CONTROL PRINCIPLE STANSSAMM POSSESSO

MrA a and available

() () () ()

stin Results by Sample Austin RAS

Work Order # 86-08-093

Falesved: 08/22/86

SANFLE ID 860258

NAME EPA method 601 Category FRACTION 02A TEST CODE EPA601 Date & Time Collected 08/21/86

MCL va/L																
VERIFIED UNITS	DET LIMIT	0.30		0.21	0.52	0.25	0.36	0.49	080 0	0 10	0.090	0.000	060 0	0.13	0 10	
FILE #	RESULT	Q	CIN	QN	QN	CN	1.54	CN	S	QN	UD	GN	NI	QN	GN	
INJECTD 08/26/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1,1-Dichloroethene	1,1-Dichloroethane	trans-1, 2-Dichloroethene	Chloroform	1,2-Dichloroethane	1,1,1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane	
ANALYST RP	CAS#	74-87-3	74-83-9	75-01-4	75-00-3	75-69-2	75-69-4	75-35-4	75-34-3	156-60-8	67-65-3	107-08-2	71-55-6	50-27-3	75-27-4	~

STANGER STOTES REPORTED BOARDARY SERVICES BOARDARY BOLLEGES BOARDARY BOARDARY

Austin RAS

Work Order # 86-08-093

Continued From Above NAME EPA method 601 Category FRACTION 02A TEST CODE EPA601 Date & Time Collected 08/21/86 RESULT DET LIMIT 0.40 0.020 0.080 0.34 0.20 0. 20 0.48 0.27 0.030 0.030 stin Results by Sample 0.10 뮝 7.42 윋 2 뮏 밁 S 뒨 Bromoform 1,2-Dichloropropane trans-1, 3-Dichloropropene Trichloroethene Dibromochloromethane 1, 1, 2-Trichloroethane cis-1,3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane Tetrachloroethene 2-Chloroethylvinyl ether COMPOUND ecelved: 08/22/86 Sample 1D 860258 75-25-57 79-34-5 78-87-5 10061-02-6 79--01-6 10061-01-5 110-75-8 79-00-5 127-15-4 124-48-1 10**4**040

549

0.25

Q Z

Chlorobenzene

108-60-3

941-73-1

95-65

106-40-7

0.54

밀

0.36

2

112 % Recovery

Bromochloromethane

SURROGATES

7. Recovery

% Recovery

1-4-Dichlorobutane

2-Bromo-1-chloropropane

3017-95-6

74-97-5

110-58-5

0.37

S

1, 3-Dichlorobenzene

1,2-Dichlorobenzene

1,4-Dichlorobenzene

MANAGENTA SON

Received: 08/22/86

RAS

Austin

Results by Sample

Work Order # 86-08-093 Continued From Above

SAMPLE ID 860258

FRACTION OZA TEST CODE EPA601 Date % Time Collected 08/21/86

NAME EPA method 601

Category

122 % Recovery 1-Bromo-4-fluorobenzene

4.60-05-4

CINES AND DEFINITIONS FOR THIS REPORT.

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

NA = not analyzed

 $\star$  = less than 5 times the detection limit NVA= not available

Herelved: 08/22/86

Results by Sample Austin RAS

REPORT

Work Order # 86-08-093

Sample 10 860258

NAME EPA method 602 FRACTION 02C TEST CODE EPA602 Date & Time Collected 08/21/86

VERIFIED

Category

UNITS

ug/L

INJECTED 08/29/86 CAS#

INSTRMT

FILE #

RESULT DET LIMIT

COMPOUND

2

Benzene

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

541--73-1

95-50-1

Toluene

0.2 0 4.39

呈

Ethylbenzene

0 0.2

S

Chlorobenzene

0.3

N

1, 4-Dichlorobenzene

0.4

2

1,3-Dichlorobenzene

밁

1,2-Dichlorobenzene

4

SURROGATES

a, a, a-Trifluorotoluene

97% recovery

. TES AND DUTINITIONS FOR THIS REPORT

98-90-86

DET LIMIT = DETECTION LIMIT

ND a nas detected at detection limit the since analyzed

than 5 times the detection limit HA = net available BONT DODON'T DODON'T LICINNIE MINISTERIONE MARKET EMMONT MAKSON DOSONS MAKKE DODONE MAK

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SAMPLE 1D 860259

Results by Sample Austin RAS

REPORT

Work Order # 86-08-093

FRACTION 03A TEST CODE EPA601 NAME EPA method 601 Date & Time Collected 08/21/86 Category

FILE # INJECTD 08/26/86 RP TMRTEMI ANALYST

UQ/L UNITS

DET LIMIT 0.30 0.52 0.25 0.36 0, 49 0.21 2 S 밁 RESUL T 1.32 2 Chloromethane Bromomethane Vinyl chloride Chloroethane Methylene chloride Trichlorofluoromethane 1,1-Dichloroethene COMPOUND 74-87-3 E - 83-+2 75-01 4 18-60-4 75-04 CASM 35-0:1 an an

N N S Chloroform trans-1,2-Dichloroethene 1.2-Dichloroethane

67-152

3: 3:

\* 1000

Î 2 QFI 1.1.1-Trichloroethane Bromodichioromethane Carbon tetrachloride

3

VERIFIED

0.080

g

1, 1-Dichloroethane

0.10

0.090

0.000

0.000

0.13

	Work Order # 86-08-093 Continued From Above	NAME EPA method 601 Category																				
	itin Results by Sample	FRACTION 03A TEST CODE EPA601 Date % Time Collected 08/21/86	RESULT DET LIMIT	ND 0.080	ND 0.34	ND 0.20	ND 0. 40	0.00 O ON	ND 0. 20	ND 0. 48	ND 0.27	0E0 0 QN	000 0 an	ND 0.25	ND 0 37	ND 0.54	ND 0.36		109 % Recovery	% Recovery	% Recovery	
0 R A T : 0 R	HAG - Austin Resul	FRACTION Date % Ti	COMPOUND	1.2-Dichloropropane	trans-1.3-Dichloropropene	Trichloroethene	Dibromochloromethane	1, 1, 2-Trichloroethane	cis-1,3-Dichloropropene	2-Chloroethylvinyl ether	Bromoform	1 1.2.2-Tetrachloroethane	Tetrachloroethene	Chlorobenzene	1.3-Dichlorobenzene	1 2 Dichlorobenzene	1.4-Dichlorobenzene	SURROGATES	Promothloremethane	S Bromo-1 chloropropane	1 4 (n.b.lorobutane	
	8838 11 88581.80 (87.2786	9000 10 8000 5	म .स -	7887	.0061-0	76.62	154 - 4	5 - 12 - C.	1600100		r : d : r	55	3				7 1		7 7 7	3017 -	110 8 2	

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stin Results by Sample FAS - Austin

Work Order # 86-08-093 Continued From Above

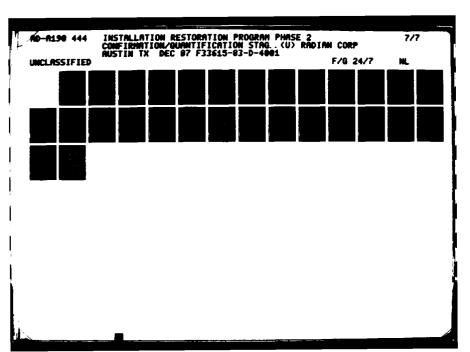
NAME EPA method 601 Category

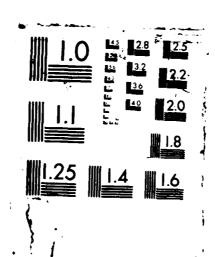
HRACIION 03A TEST CODE EPA601 Date % Time Collected 08/21/86

1-Rremo 4 fluorobenzene 110 % Recovery

ND = not detected at detection limit AND E - INITIONS FOR THIS REPORT DET LIMIT = DETECTION LIMIT

than 5 times the detection limit N'Am not available





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tin Results by Sample Austin RAS

Work Order # 86-08-093

Received: 08/22/86

SAMPLE 1D 860259

FRACTION 03C TEST CODE EPA602 Date & Time Collected 08/21/86

NAME EPA method 602 Category

MCL VERIFIED

RP D ANALYST TMRTONE

FILE # INJECTED 08/29/86

CAS#

71-43-2

108-88-3

100-41-4

108-90-7

UNITS

COMPOUND Benzene

밁

RESULT DET LIMIT

0.5

1.40

0.2

Toluene

Ethylbenzene

S

Chlorobenzene

0.2

0.2

о Э

밁

1, 4-Dichlorobenzene

106-46-7

541-73-1

555

95-50-1

0.4

2

1, 3-Dichlorobenzene

1, 2-Dichlorobenzene

0.4

2

SURROGATES

a, a, a-Trifluorotoluene

8-80-86

95% recovery

ESTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

M) = not deterted at detection limit

No a not analyzed

\* = less than 5 times the detection limit

NNA # net available

RADIAN

Austin RAS

tin Results by Sample

Work Order # 86-08-093

Received: 08/22/86

SAMPLE 1D 860261

NAME EPA method 601

Category MCL VERIFIED FRACTION 04A TEST CODE EPA601 Date % Time Collected 08/21/86 FILE # 리

U9/L UNITS DET LIMIT RESULT INJECTD 08/27/86 COMPOUND #SVD AMALYST INSTAMI

0.30

月

Chloromethane

74-87-3

74-83-9

2

Bromomethane

0.21

g

Vinyl chloride

0.52

2

Chloroethane

75-00-3

75-01-4

2-60-51

75-65-4

556

0.25

S

Methylene chloride

Trichlorofluoromethane

0.36

밁

1,1-Dichloroethene

1, 1-Dichloroethane

0.49

0.080

S

0.10

0.58

trans-1, 2-Dichloroethene

155-50-5

25-34

75-35-4

67-60-3

107-06-2

0.090

g

Chloroform

0.60

일

1, 2-Dichloroethane

1, 1, 1-Trichloroethane

Carbon tetrachloride

54-53-5

75-27-4

2222

71-55-6

Bromodichloromethane

0.090

3

0 13

윌

0.10

2

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1 (m)	20
7.47	RPORAT
) 23. a B22	0
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FRACTION 04A TEST CODE EPA601 Date % Time Collected 08/21/86 DET LIMIT 0.34 0.20 0.40 0.020 0.20 0.48 0.080 RESULT S 욷 0.30 밁 皇 g 윋 1, 2-Dichloropropane trans-1, 3-Dichloropropene Trichloroethene Dibromochloromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene 2-Chloroethylvinyl ether COMPOUND Received: 08/22/86 SAMPLE 1D 860261 10061-02-6 79-01-6 79-00-5 10061-01-5 110-75-8 78-87-5 124-48-1 CAS#

Work Order # 86-08-093 Continued From Above NAME EPA method 601 Category 0.27 0.030 0.030 tin Results by Sample 웆 일 밁 Austin Bromoform 1, 1, 2, 2-Tetrachloroethane Tetrachloroethene RAS

0.25

S

Chlorobenzene

75-25-2

4

79-34-5

557

127-18-4

108-90-7

541-73-1

95-50-1

0.54

S

0.37

S

1, 3-Dichlorobenzene

1, 2-Dichlorobenzene

1, 4-Dichlorobenzene

106-46-7

SURROGATES

0.36

밁

% Recovery

<del>ا</del>

Bromochloromethane

74-97-5

2-Bromo-1-chloropropane

1-4-Dichlorobutane

110-58-5

3017-95-6

% Recovery

% Recovery

AND DECEMBER DESCRIPTION DE LA PROPERTIE DESCRIPTION DE LA PROPERTIE DESCRIPTION DE LA PROPERTIE DESCRIPTION DE LA PROPERTIE DE LA

KANDIAN CONTROL

38. 16 16

eterved: 08/22/86

SANFLE ID 860251

Results by Sample

Austin

RAS

Work Order # 86-08-093

Continued From Above

FRACTION 04A TEST CODE EPA601 Date % Time Collected 08/21/86

79 % Recovery

1-Bromo-4-fluorobenzene

460-00-4

NAME EPA method 601

Category

ND = not detected at detection limit MOTES AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

NA = not analyzed

\* = less than 5 times the detection limit

NVA= not available

558

DOM KKKKI DOMA KOKKI BODDI BAKKA BEKKKI KKKKI KKKKKI KKKKKI BERKE KKKKKI KKKK

Received: 08/22/86

SAMPLE 10 860261

Results by Sample Austin RAS

REPORT

Work Order # 86-08-093

FRACTION 04C TEST CODE EPA602 Date % Time Collected 08/21/86

NAME EPA method 602 Category

VERIFIED

ANAL YST INSTRMT

FILE # INJECTED 08/29/86

UNITS

RESULT DET LIMIT

COMPOUND

CAS#

Benzene

0 2

Toluene

108-88-3

100-41-4

108-90-7

71-43-2

0.5

Q N

Ethylbenzene

2

Chlorobenzene

0

0.3

2

1, 4-Dichlarobenzene

106-46-7

541-73-1

1, 3-Dichlorobenzene

0.4

S

0.4

2

1, 2-Dichlorobenzene

SURROGATES

a, a, a-Trifluorotoluene

8-80-86

TOTALS AND DEFINITIONS FOR THIS REPORT

DET LIMIT = DETECTION LIMIT

ND a nor detected at detection limit

a males, than 5 times the detection limit

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NVA = not available

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Received: 08/22/86

tin Results by Sample Austin

RAS

Work Order # 86-08-093

SAMPLE ID Field blank

FRACTION 05A TEST CODE EPA601 Date & Time Collected 08/20/86

NAME EPA method 601 Category

WERIFIED MCL	T DET LIMIT	0 30 QN	ND 1.2	ND 0.21	ND 0.52	6 0.25	0.36	<u>10</u> 0 49	080 0 QN	ND 0 10	0.00 O ON	060 0 QN	060 0 QN	ND 0. 13	ND 0 10
FILE	RESULT	2	2	2		20.6	3.07	Q	2		2	2	2	2	2
INJECTD 08/26/86	COMPOUND	Chloromethane	Bromomethane	Vinyl chloride	Chloroethane	Methylene chloride	Trichlorofluoromethane	1, 1-Dichloroethene	1,1-Dichloroethane	trans-1,2-Dichloroethene	Chloroform	1,2-Dichloroethane	1, 1, 1-Trichloroethane	Carbon tetrachloride	Bromodichloromethane
ANALYST RP	CAS#	74-87-3	74-83.9	75-01-4	75-00-3	75-09-2	75-69-4	75-35-4	75-34-3	156-60-9	67-66-3	107-08 2	71-55 6	96.53.33	75-57-4

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Work Order # 86-08-093 Continued From Above

stin Results by Sample

- Austin

RAS

scenved: 08/22/86

NAME EPA method 601

Category

FRACTION 05A TEST CODE EPA601 Date % Time Collected 08/20/86 RESULT DET LIMIT 0.40 0.48 0.34 0.25 0.54 0.36 080.0 0. 20 0.020 0. 20 0.27 0.030 0.030 0.37 윋 2 g Ş 2 윋 9 2 S 2 밁 윋 2 Ŝ 1,2-Dichloropropane trans-1, 3-Dichloropropene Bromoform 1, 3-Dichlorobenzene 1, 4-Dichlorobenzene SURRUGATES Trichloroethene Dibromoch loromethane 1, 1, 2-Trichloroethane cis-1, 3-Dichloropropene 2-Chloroethylvinyl ether 1, 1, 2, 2-Tetrachloroethane Tetrachloroethene Chlorobenzene 1, 2-Dichlorobenzene COMPOUND SAMPLE ID PIPID blank 78-87-5 10051-02-6 79-01-6 79-00-5 10051-01-5 110-75-3 75-25-2 79-34-5 127-15-4 105-46-7 124-43-1 108-96-7 541-73-1 95-50-1 #9.40 UV: 561

TILLEGIA, POCCESSAS SELECTORIS DECLIALLI POCCESSOS DECLIALI POCCESSOS DESCENDA PERSONA

province Beeres

109 % Recovery

Bromochloromethane

8-26-42

3017-95-6

110-56-5

2-Bromo-1-chloropropane

1-4-Dichlorobutane

% Recovery

" Recovery

Selenved: 08/22/86 **2000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1** 0ट स्ट्र

Austin RAS

tin Results by Sample

Work Order # 86-08-093 Continued From Above

SENSIE ID FIELD blank

FRACTION 05A TEST CODE EPA601 Date & Time Collected 08/20/86

NAME EPA method 601 Category

> 1-Bromo-4-fluorobenzene 460-00-4

96 % Recovery

NOVEE AND DEFINITIONS FOR THIS REPORT. DET LIMIT = DETECTION LIMIT

ND = not detected at detection limit

NA = not analyzed

4 = less than 5 times the detection limit NNA= not available

Received: 08/22/86

tin Results by Sample Austin RAS

Work Order # 86-08-093

SAMPLE ID Freid blank

FRACTION 05B TEST CODE EPA602 Date & Time Collected 08/20/86

NAME EPA method 602 Category

VERIFIED

INJECTED 08/29/86 AP P ALALYST TMSTRMI

UNITS FILE

RESULT DET LIMIT COMPOUND

CAS#

71-43-2

108-88-3

100-41-4

109-90-7

밁 Benzene

0.22 Toluene

0

0.5

2 Ethylbenzene

0

0 S S

Chlorobenzene

1, 4-Dichlorobenzene

106-46-7

563

541-73-1

95-50-1

1, 3-Dichlorobenzene

1, 2-Dichlorobenzene

о Э 0.4 2

0.4

S

SURROGATES

96% recovery a, a, a-Trifluorotoluene

8-80-86

MONTH AND DUTINITIONS FOR THIS REPORT

ND == not detected at detection limit DET LIMIT = DETECTION LIMIT

 $\mathcal{U}_{\mathcal{S}} \simeq \operatorname{not}$  analyzed  $\Rightarrow \simeq 1e_{2} \in \text{than 5 times the detection limit}$ 

NA = not available

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Received: 08/22/86

REPORT Results by Sample Austin RAS

Work Order # 86-08-093

FRACTION 06A TEST CODE EPA601 NAME EPA method 601 Date % Time Collected not specified Category MCL U9/L VERIFIED UNITS DET LIMIT 0 10 0.30 0.080 0.10 0.52 0.25 0.36 0.49 0.13 0.000 060 0 060 0 0.21 Q 밁 Ŷ 일 일 일 S Î Î 2 S FILE # RESULT 0 77 3.57 1, 1, 1-Trichloroethane INJECTD 08/27/86 Chloromethane Bromomethane Vinyl chloride Chloroethane Methylene chloride Trichlorofluoromethane 1, 1-Dichloroethene 1,1-Dichloroethane trans-1, 2-Dichloroethene Chloroform Carbon tetrachloride Bromodichloromethane 1, 2-Dichloroethane COMPOUND SAMPLE ID trip blank S G 74-87-3 74-83-9 75-01-4 75-00-3 75-09-2 75-69-4 75-35-4 75-34-3 150-60-5 107-06-2 71-55-6 56-23-5 75-27-4 CAS# INSTRMT ANALYST

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6017/80 Dayles

tin Results by Sample Austin RAS

Work Order # 86-08-093 Continued From Above

SAME ID trip blank

NAME EPA method 601 Date & Time Collected not specified FRACTION 06A TEST CODE EPA651

Category

RESULT DET LIMIT 0.34 0. 20 0 40 0.020 0.030 0.36 0.080 0. 20 0.48 0.030 0.25 0.54 0.27 0.37 114 % Recevery 밁 Z S g Q S ΩN 밁 밁 2 뒫 윋 S 1, 2-Dichloropropane Bromoform Bromechloromethane trans-1, 3-Dichloropropene Trichloroethene Dibromochloromethane 1, 1, 2-Trichloroethane cis-1,3-Dichloropropene 1, 1, 2, 2-Tetrachloroethane SURROGATES 2-Chloroethylvinyl ether Tetrachloroethene Chlorobenzene 1, 3-Dichlorobenzene 1,2-Dichlorobenzene 1,4-Dichlorobenzene COMPOUND 78-87-5 10061-02-€ 79-01-6 79-00-8 10061-01-5 110-75-8 75-29-3 3-18-54 127-16-4 5-60-46 124-48-1 108-801 541-73-1 95 - 50-1 108-40 CASE

PRINTER SESSION FESTERS PRINTER FRANKI BRITISH FRANKS FOR SOUT BESSON DESIGNATION FOR

% Recovery

% Recovery

1-4-Dichlorobutane

110-56-9

3017-99-1

2-Brome-1-chloropropane

5age 24 Pecesved: 08.89/86

Austin ; RAS

REPORT Results by Sample

Work Order # 86-08-093 Continued From Above

NAME EPA method 601

Category

SINGLE ID trip blank

FRACTION <u>06A</u> TEST CODE <u>EPA601</u> NADate & Time Collected not <u>specified</u>

4-00-094

97 % Recovery 1-Bromo-4-fluorobenzene

PODES AND DEFINITIONS FOR THIS REPORT

DET LIMIT = DETECTION LIMIT

MD = not detected at detection limit

\* = less than 5 times the detection limit NA = not analyzed

NNA= not available

566

1998 SILIING FOOTSIN SISSIN PILIING KASSIN PILIING PILIING PILIING BIRAN KOOSSI KOOSSI

Austın RAS

REPORT Results by Sample

Work Order # 86-08-093

Received: 08/22/86

SAMPLE ID trip blank

FRACTION 06B TEST CODE EPA602 NAME EPA method 602 Date & Time Collected not specified Category

Category

VERIFIED

FILE #

INJECTED 08/29/86

RР

ANALYST INSTRMT CAS#

71-43-2

108-88-3

100-41-4

108-90-7

106-46-7

541-73-1

UNITS

COMPOUND RESULT DET LIMIT

0.2 밁

Benzene

3.05

Toluene

O [3]

2 2

Ethylbenzene

N

Chlorobenzene

0.2

0.3

밁

1,4-Dichlorobenzene

0.4

0.4

2

1, 3-Dichlorobenzene

1, 2-Dichlorobenzene

일

95% recovery

SURROGATES

a, a, a-Trifluorotoluene

8--80--86

ES AND DUTINITIONS FOR THIS REPORT.

ND = not detected at detection limit DET LIMIT = DETECTION LIMIT

NA = not analyzed

\* = less than 5 times the detection limit

NVA = net available

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Received: 08/22/86
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	CORPORATION				
# 22 # 40 # 40 # 60	8age 1 8acetved: 08/22/86	RAS -	Austin 09/03/86 09:49:04	ORT	Work Order # 86-08-094
PEPORT TO	FEFORT Radian TO RI 4 Austin		PREPARED Radian Anald BY 8501 Mo-pac PO Box 9948	Radian Analytical Services 8501 Mo-pac Bl. PD Box 9948	Cepter Kylleder
ATTEN	ATTEN Larry French		ATTEN ATTEN PHONE 512-454-4797	-4797	
CLIENT PLANT4 COMPANY Plant -	PLANT4 Plant 4, USAF General Dynamics	SAMPLES 20			
<b>1</b>	(		tnotes and	mments	
TAKEN WOTEN	W.J.		* Indicates a va Potential error	Indicates a value less than 5 times the detection limit otential error for such low values ranges between 50 and	* Indicates a value less than 5 times the detection limit. Potential error for such low values ranges between 50 and 100%.

specific matrix was not within acceptable limits indicating

an interferent present.

@ Indicates that spike recovery for this analysis on the

SAMPLE IDENTIFICATION 860238 860239

under separate cover

# 0 A 569

212-027-27-40

Oil and grease, infrared Hydrocarbons HC IR DINA BESISSA DISTORA JAKANAN PININDA PININDA MESEKU KRIBRAH BINDAUT BIRIBER BESISSA BIRIBAN

TEST CODES and NAMES used on this report

Paga 2 Received: 08/22/86

SAMPLE IDENTIFICATION Nº 860256

THE LOCAL DOCUMENT PROPERTY INCREMENT INCREMENT DISCUSSION DISCUSSION

PAPERAT REFEREN

Paga 3 Received: 08/22/86	RAS -	Austin Results By Test	Work Order # 86-08-094
SAMPLE 1	Test: HC IR	Test: ONG IR	
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03	₽	Cl.	
EA0239 04	Ü	d	
05 1	ņ	(1	
960241 06 1	Ü	t)	
07	ņ	d.	
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950244 09 1	Ü	<1	
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11 55000 5 5 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ç	t)	
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elved:	08/55/80		Results By lest	Continued From Above
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8002 <b>52</b>	asi as			
	17 !	₽	₽	
880233				
	18	₽	₽	
860254				
	19 !	₽	<b>≫</b>	
860255				
	50 !	<u></u>	<b>5</b>	
850856	••			

Potential error for such low values ranges between 50 and 100%. specific matrix was not within acceptable limits indicating Work Order # 86-08-095 CONTACT CONDVER \* Indicates a value less than 5 times the detection limit. £ Indicates that spike recovery for this analysis on the CERTIFIED/B Services Radian Analutical 8501 Mo-pac Bl. Austin, TX 78751 an interferent present. stin REPORT 09/10/86 13:48:06 Footnotes and Comments 512-454-4797 PO Box 9948 PREPARED ATTEN PHONE Austin SAMPLES RAS under separate cover General Dunamics 212-027-27-40 O&G, HC, metals Plant 4, USAF ATTEN Larry French Received: 08/22/86 Redian Austin PLANT4 REPORT TO FACILITY WORK ID TYPE INVOICE CLIENT COMPANY TAKEN TRANS \* O.

TEST CODES and NAMES used on this report Dil and grease, infrared Digestion, method 3020 Digestion, method 6010 Selenium, graphite AA Arsenic, graphite AA Mercuru, cold vapor Lead, graphite AA Chromium, ICPES Cadmium, ICPES Barivm, ICPES ICPES Hudrocarbons Silver, HO CONO IR 053020 066010 HC IR 

SAMPLE IDENTIFICATION

860258 860259 860260

**급명명회**의

860261

860257

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SOURCE SOURCE SOURCE SOURCE SOURCE RESERVED FROM THE SOURC

Secondary and and and

FST CODE : Sample ()	10	Samile 02	Samnle 03	Sample 04	Samule 05
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	0.017	0. 26	0. 086	0.004*	0.004*
	0.036	0.16	0.12	0.13	0.081
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CR E 0.0	<b>*900 '0</b>	0.0083	0.019*	0.007#	0.020*
0	08/57/86	08/56/86	08/56/86	08/56/86	08/56/86
	08/56/86	08/56/86	08/56/86	08/57/86	08/56/86
HC_IR		₽	₽		₽
ING_IR		₽	ט		$\Box$
• • • •	0.007	0.050	0.022	0.006	0.00
SE 6	<. 002	0.005*	<. 002	<. 002	<. 002

Work Order # 86-08-095 NAME Mercury, cold vapor NAME Mercury, cold vapor Category Category UNITS UG/MI UNITS VERIFIED VERIFIED FRACTION OZA TEST CODE HG C Date & Time Collected 08/21/86 FRACTION OIA TEST CODE HG C Date & Time Collected 08/21/86 REPORT Results by Sample 0.00020 DET LIMIT DET LIMIT FRACTION OZA NA = not analyzed + m less than 5 times the detection limitAustin ANALYZED 08/27/86 ANALYZED 08/27/86 0.0004\* ND = not detected at detection limit NOTES AND DEFINITIONS FOR THIS REPORT. RESULT RESULT RAS DET LIMIT - DETECTION LIMIT Mercury ANALYTE ANALYTE N/A = not available Page 3 Received: 08/22/86 SAMPLE ID 860258 SAMPLE 1D 860257 403 403 ANALYST INSTRMT ANALYST **#NSTRMT** 

0.00020

0.0002\*

Mercury

Page 4 Received: 08/22/86	RAS -	Austin Results	tin REPORT Results by Sample	Work Order # 86-08-095 Continued From Above
SAMPLE ID 860258		FRACTION OZA Date & Time	FRACTION OZA TEST CODE HG C Date & Time Collected 08/21/86	NAME Mercury, cold vapor Category
NOTES AND DEFINITIONS FOR THIS REPORT.  DET LIMIT - DETECTION LIMIT  ND = not detected at detection li  NA = not analyzed  * = less than 5 times the detection NA = not available	NS FOR THIS REPORT.  TECTION LIMIT  ted at detection limized  times the detection	f. limit tion limit		
SAMPLE ID 860259		FRACTION O3A Date & Time	FRACTION O3A TEST CODE HG C Date & Time Collected 08/21/86	NAME Mercury, cold vapor Category
576			VERIFIED	D GCL
ANALYST DES	ANALYZED <u>08/27/86</u>	98/22/80	5	UNITSuq/ml
∢	ANALYTE RESULT	DET LIMIT	IMIT	
	Mercury	ND O.	0.00020	
NOTES AND DEFINITIONS FOR THIS REPORT.  DET LIMIT = DETECTION LIMIT  ND = not detected at detection li  NA = not analyzed  + = less than 5 times the detection NA = not available	FOR THIS REPORT. TION LIMIT at detection lim imes the detectio	T. limit tion limit		

Austin

RAS

Page 5

Work Order # 86-08-095

NAME Mercury, cold vapor Category NAME Mercury, cold vapor Category UNITS UNITS VERIFIED VERIFIED FRACTION 04A TEST CODE HG C Date & Time Collected 08/21/86 FRACTION OSA TEST CODE HG C Date & Time Collected 08/21/86 tin REPORT RESUlts by Sample 0.00020 0.00020 DET LIMIT DET LIMIT \* = less than 5 times the detection limit ANALYZED 08/27/86 ANALYZED 08/27/86 뮏 2 ND = not detected at detection limit NOTES AND DEFINITIONS FOR THIS REPORT. RESULT RESULT DET LIMIT - DETECTION LIMIT Mercury Mercury ANALYTE ANALYTE N/A = not available NA = not analyzed Received: 08/22/86 SAMPLE 1D 860260 403 SAMPLE ID 860261 403 ANALYST INSTRMT ANALYST

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MANAGEMENT STATESTAL STATE

Received: 08/22/86 Page 6

SAMPLE ID 860261

\* = less than 5 times the detection limit

N/A = not available

578

ND = not detected at detection limit

NOTES AND DEFINITIONS FOR THIS REPORT.

DET LIMIT = DETECTION LIMIT

FRACTION 05A TEST CODE HG C Date & Time Collected 08/21/86

tin REPORT Results by Sample

RAS - Austin

Work Order # 86-08-095 Continued From Above

NAME Mercury, cold vapor Category



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Received: 08/22/86		12/19/86 15:53:59	
REPORT Radian TO B1.4 Austin		PREPARED <u>Radian Analutical Services</u> BY <u>8501 Mo-pac Bl.</u> PO Box 9948 Austin, TX 78751	CERTIFIED BY
CLIENT PLANT4	SAMPLES 4		
COMPANY	' } }	spikeda=21.0(5,2)pCi/L	2 +spike c
TAKEN WO		a=36.6(4.9) b=146.6(8.7) -02. had replicate sample aliquots. b=9.6(0.5) Mixed std calc. a=	-02 had replicate counts03 s. Mixed std. act. a=2.4(0.3) a=2.3(0.4) b=8.3(0.6)
######################################		Dublicate of report of 09/10/86. Footnotes and Comments	
4		icates a value less th tial error for such lo	times the detection limit. Lues ranges between 50 and 100%.
579		@ Indicates that spike recovery for this analysis specific matrix was not within acceptable limits an interferent present.	for this analysis on the acceptable limits indicating
SAMPLE IDENTIFICATION  SAMPLE IDENTIFICATION  SAMPLE IDENTIFICATION  SAMPLE IDENTIFICATION  SAMPLE IDENTIFICATION  SAMPLE IDENTIFICATION	ALPHA BETA GAMMA	Gross alpha radiation Gross beta radiation General radiation	used on this report
·			

			555550		2000000 2000000 2000000000000000000000
ige 2 iceived: 08/22/86	RAS 6	- Austin Results By Test	REPORT Test	Work Order # 86-08-096	e een oordeele
TEST CODE	Sample Ol Sampli (entered		02 Sample 03	Sample 04	
ALPHA	5.1(4.4)	3.6(4.0)	3.3(2.4)	(2.1	
pCi/	1 pCi/L	pCi/L	pCi/L	pCi/L	
BETA	4.7(3.8)	(4.2	7. 2(2, 2)	(5.7	
pCi/	l pCi/L	pCi/L	pCi/L	pCi/L	
GAHMA	1 (10.72	<12.6	69.4	(12.5	
pC1/	t pCi/kg	pCi/kg	pCi/kg	pCi/kg	

RAS - Austin

tin REPORT NonReported Work

Work Order # 86-08-096

SPARE SPARE SPARE

950 930 978

TOACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE Page 3 Received: 08/22/86

581 4

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ECONOMIC DISTRICT DISTRICT POLICY POLICY PROPERTY

ENd DATE FILMED 4-88